PROCEEDINGS

OF THE

TWELFTH ANNUAL MEETING

OF THE

Oregon State Medical Society,

HELD IN PORTLAND, JUNE 8, 9 AND 10, 1885.

PUBLISHED BY THE SOCIETY.

E. P. FRASER, SECRETARY,

PORTLAND, OREGON.

Vol. XII.

The next annual meeting of the Society will be held in Portland, June 8, 9 and 10, 1886.

PORTLAND, OREGON:

A. ANDERSON & CO., PRINTERS AND LITHOGRAPHERS.

1885.

NOTE.

The Oregon State Medical Society, while formally accepting and publishing the various papers read at this session, does not hold itself responsible for the opinions, theories, or criticisms therein contained.

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SECRETARY, - - - - -	E. P. Fraser, Portland.

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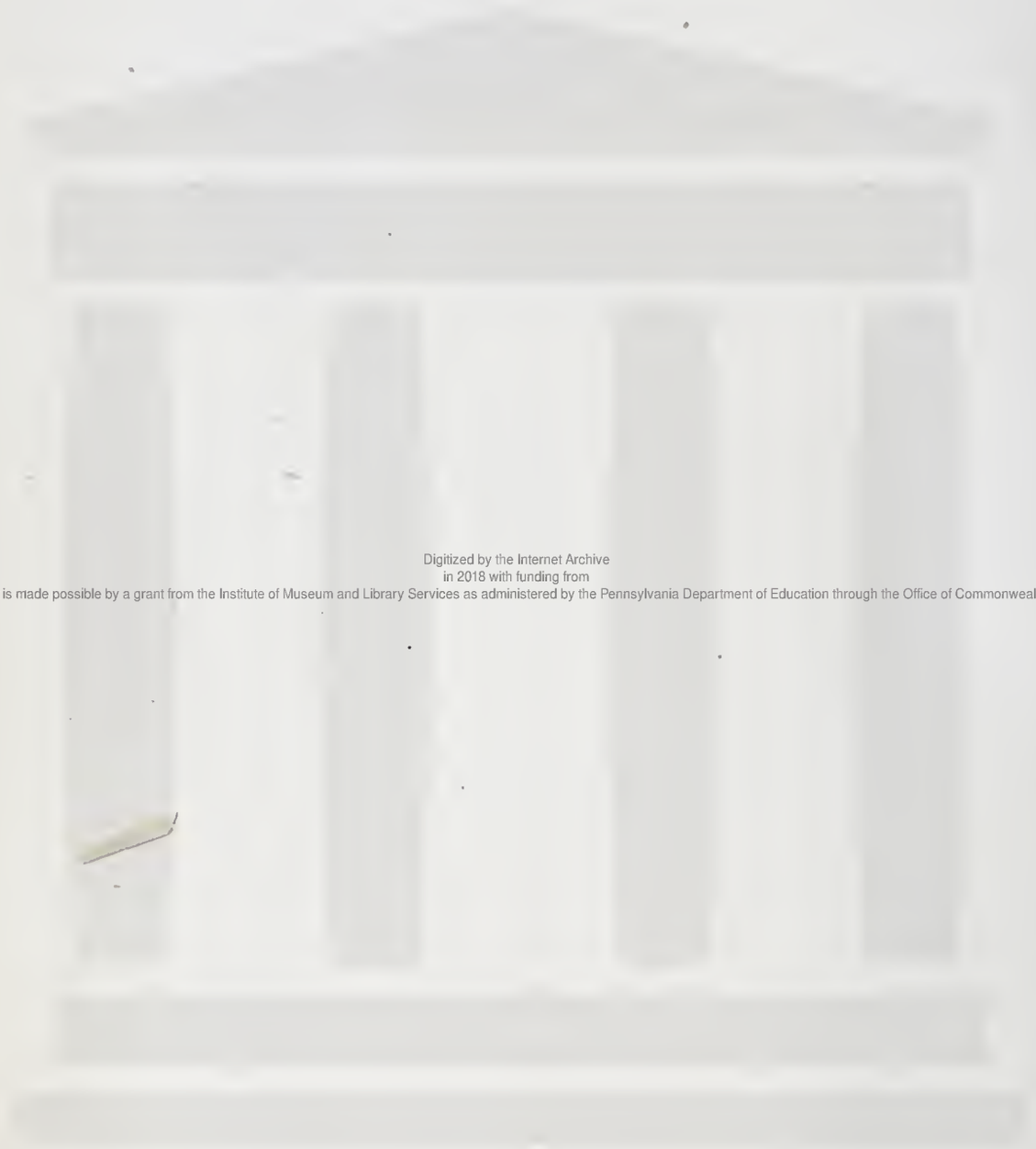

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OREGON STATE MEDICAL SOCIETY.

TWELFTH ANNUAL MEETING,

Held in Portland, Oregon, June 8, 9 and 10, 1885.

First Day.

PORTLAND, OR., Monday, June 8, 1885.

The Society was called to order at 2:30 P. M. President S. E. Josephi in the Chair.

Upon roll-call the following members were present: R. Glisan, W. H. Watkins, S. E. Josephi, C. H. Wheeler, B. A. Owens-Adair, C. C. Strong, E. P. Fraser, K. A. J. Mackenzie, G. M. Wells, G. E. Nottage, O. M. Dodson, J. A. Fulton, W. B. Watkins, G. C. Lane, Dav. Raffety, W. W. Royal, R. A. Urquhart, and Harry Lane.

Dr. W. H. Watkins then welcomed the Society to the city of Portland.

On motion of Dr. Strong, the Secretary was authorized to invite the officers of the city Hospitals to be present at the meetings of the Society.

The proposed amendments to the Constitution and By-Laws were then considered:

Article III. of Constitution to be so amended as to read: "Any graduate of a medical school, entitled to representation in the American Medical Association, if engaged in a reputable practice, shall be eligible to membership; but, unless a commissioned officer in the United States Medical Service, a member in good standing of some other State Medical Society, or a graduate of the Medical Department of the Willamette University, he must

have been engaged in practice for one year in Oregon or Washington Territory."

Article V. to be so amended as to read: "The regular meetings of the Society shall be held annually, commencing the second Tuesday in June."

Section 1, Article II of By-Laws, to be so amended as to read: "Any member two years in arrears for dues shall be reported to the Society as delinquent, and shall thereupon be notified by mail of such delinquency, at least three months before the next annual meeting; and when three years in arrears, after due notification by the Secretary, shall be dropped from the roll of members."

Mrs. B. A. Owens-Adair, then read a paper on "Suppression of Urine during First Labor at Full Term." Dr. Glisan said as such a large quantity of urine was found so soon after labor, and as there were no symptoms of hysteria or kidney disease, he regarded this as a case of retention instead of suppression, and that there must have been urine in the bladder when the attempt was made to remove it, and failure to do so was owing to the great difficulty sometimes experienced in introducing the catheter during labor.

Dr. Strong said that he had frequently noticed that the secretion of urine during labor was somewhat diminished, and that it was no uncommon thing for women in hard labor to go several hours without evacuating the bladder.

Dr. Mackenzie said he could not understand how there could be a suppression of urine, and in so short a time the bladder should be found so distended; and as the amount of urine drawn off in this case some hours after delivery was about the amount we might expect, under the circumstances, would be secreted since the bladder was last evacuated, was also disposed to regard it a case of retention, and not one of suppression.

Dr. Dodson said that he had frequently failed to introduce a catheter during labor, and it would be especially difficult to introduce the soft rubber catheter, as it would be very likely to fold upon itself in the urethra; and, if it should reach the bladder, urine would not be likely to flow, owing to pressure of the head upon the catheter.

The paper was referred to the Executive Board.

Dr. Mackenzie presented and gave history of a case of lead paralysis, which was discussed by Drs. Dodson, Owens-Adair, Lane and Fulton.

Dr. Mackenzie also related an interesting case of fracture of the skull.

Dr. Strong extended to the Society an invitation to visit Good Samaritan Hospital.

Society adjourned until 10 A. M.

Second Day.

TUESDAY, June 9th, 1885.

Society was called to order at 10 A. M., the President, Dr. S. E. Josephi, in the Chair.

The Rev. Dr. Marvin being present, opened the meeting with prayer.

The Secretary read an Act, prepared by the American Medical Association, to establish a State Board of Medical Examiners. A motion to endorse the Act as read and refer it back to Committee on Legislation was lost. A motion was then made and carried, that the consideration of the Act be made a special order for 3 o'clock.

Dr. J. W. Givens, of Salem, then read a paper entitled "Diagnosis of Insanity."

Dr. C. C. Strong said that our worthy President, Dr. S. E. Josephi, who for several years was connected with the Oregon Hospital for the Insane, and who is recognized as an expert on the subject of Insanity, being present, hoped that he would open the discussion on the paper just read.

Dr. Josephi said it seems to me, the paper just read by Dr. Givens is a very complete one upon the subject of which it treats. It is a subject that general practitioners, as a rule, do not give sufficient attention to. I cannot add anything to what he has said upon the subject, nor can I find any points in his paper for adverse criticism. One point upon which he touched struck me as being particularly pertinent; that was with regard to the fact of finding insane persons exhibiting various phases of impaired reasoning powers, or perhaps I might say different lights and shadows of mental manifestations when observed at various times. I know that when in charge of the insane, there were a great many occasions when superficial observers would remark, of particular cases, that they exhibited no evidences of mental aberration, when, in fact, those patients had been confined for years, and were absolutely too dangerous to be at large. These mistaken impressions arise simply from the fact, as noted by the Doctor, that such patients were seen at the time of occurrence of the partly or wholly lucid intervals.

This question of insanity, and its bearing upon the theories of relationship between mind and matter, is a very profound and a very puzzling one. How are we to understand, or how are we to account for the fact that insanity, being dependent upon a physical condition, that is, a disease of matter, (for this I hold to be the true theory, and I presume Dr. Givens will support me in it, though he refused to discuss the theoretical part of the subject). I say that it is a puzzling question to unravel and understand how it can be that insanity is dependent upon diseased matter, and yet that we should have intervals of what appear to be perfect and rational manifestations. In a cursory discussion we cannot go into the depths of the subject, but we may suppose the pathological processes are held in abeyance, in some unaccountable way, during these lucid periods.

The hints which he gives as to the diagnosis of insanity in general are, of course, good. The suggestion not to deceive a patient is one I have particularly insisted upon whenever speaking or writing upon that particular phase of the subject.

There is too much of that done, especially in the way of deceiving patients in taking them to asylums. I have received

patients at the Asylum, during my service as superintendent, who had been deceived and made to believe they were being conveyed to the hotel, and once deceived in that way, as the Doctor suggests, it is a difficult matter to divest their minds of the false impression and, what is more important, to inspire confidence after deceit has been practised upon them.

I think the paper an excellent one. As I said before, I see no place where adverse criticism would be just or proper.

Dr. Strong said, Mr. President: There has always seemed to be more difficulty in the application of our knowledge of insanity to the judicial degree of immunity it shall afford to persons accused of unlawful acts.

The plea of insanity has undoubtedly been abused as it is now set up in about every case where there is no other defence. It has, therefore, occurred to me that if the present laws upon this subject were to be changed, so that a person escaping the just penalty of his crime upon this defence might be placed, by the trial judge, in an asylum for the insane for the same length of time he, the prisoner, would for the crime have been sentenced to the penitentiary, it would simplify the whole subject.

In some degrees of insanity, an insane person might be somewhat, and to some degree, responsible for his crime, or at least to the extent that his punishment might be necessary for its effects upon the insane themselves.

In explanation of the fact that the insane have lucid intervals, may be due to the condition of the circulation.

We know that the activity of brain action, "mind," is due to an increased flow of blood, within normal limits, through the brain cells.

Therefore, may it not be that the stimulus of our examination so increases the flow of blood in the brain as to stimulate that brain to its normal power. If this is so, it can be maintained but for a short time, and should never deceive a physician into believing that the subject is sane. It is but a matter of time to overcome this increased activity, and we will then have the reaction. This reaction will correspond to the degree of stimulation.

It is to this fact that visitors to insane persons are so often led to believe them sane.

Dr. May H. Whitney said in one paper it is impossible to include all points of interest pertaining to the undeveloped field of study in this disease, and the Doctor has omitted one physical symptom with which I have met, and which was very interesting to me in this connection; it is an excessive irritability of the nerve centres manifested by spinal and cranial tenderness on pressure.

A man, supposed to have full possession of his senses, came into my office last August to consult me in regard to his eyes. He talked very freely, and said he would take treatment in a month or two, as he would then have plenty of money. The subjective symptoms were muscæ voliantes and cephalalgia, but I found no ocular disease. I then percussed the dorsal vertebra, in the region of the cilio-spinal center, which gave exquisite pain, while the whole vertebral column, as well as the occiput, was tender on pressure. He then said he had suffered much from pain between the scapulae. At this time his gait was irregular, and as insanity rapidly developed, he was not long after removed to the asylum.

Dr. Givens said in closing the discussion, I will say I did not attempt to mention all the symptoms which the insane present; indeed, to do so, would be to mention the symptoms of all diseases to which humanity is heir, for the insane are in no wise protected from any disease by reason of their insanity. Many of their symptoms and diseases are, however, purely incidental to their insanity, and have nothing to do with their mental state, as is shown by the fact that they have various physical diseases, and recover from them while the mental condition often remains unchanged.

I do not mean to say that I believe insanity does or does not always depend upon a purely physical basis, and shall not discuss that question, but desire to say that many of the ailments of the insane have no appreciable relation to the phenomena of insanity.

In the case which the Doctor mentions as having an irritable spine, that might be corroborating evidence of insanity, or, in one predisposed to insanity, it might be an expression of a general neurotic basis upon which the plant of insanity readily grows.

In regard to confining insane criminals in an asylum for the

same length of time they would be confined in a penitentiary, if sane: it is a very large subject; but to punish a wholly irresponsible insane person can do him no good, and is manifestly inhumane. I think we had better preserve our asylums as hospitals, and if the perpetrator of crime must be punished, let it be done in the places appointed for that purpose. Dr. Strong thinks a searching examination of the patient will always elicit the symptoms of insanity, however veiled.

Dr. Strong: I do not mean that, and did not mean to convey that impression. I was speaking of ordinary cases.

Dr. Givens: In most cases, the diagnosis of insanity is so easy that the physician is needed only that the responsibility may be lodged where it belongs, and it is in the exceptional cases where the testimony of the physician is especially required.

In a certain class of cases, it is as impossible to discover reliable symptoms of insanity as it is to discover symptoms of epilepsy during the absence of fits.

This erratic nature of insanity should make us tolerant of each other's opinions, where there is so much of uncertainty and so much room for reasonable doubt.

If the hasty opinion were oftener withheld, the hot-tempered defence of diagnosis and professional coldnesses would often be prevented.

The paper was referred to the Executive Board.

The order of business was suspended, for the purpose of allowing Dr. Strong to present a case of uncontrollable hemorrhage from a slight wound of the finger. The subject was a lad about 18 years of age, and belonged to a family who were all of a hemorrhagic diathesis.

Dr. A. J. Fulton, of Astoria, then read a paper entitled, "Gunshot Wounds in Private Practice," advocating non-interference, and condemning the use of the probe in all cases and under all circumstances. Owing to the lateness of the hour, discussion of the paper was deferred until afternoon session.

The Executive Board then reported favorably upon the following applicants, and they were elected active members of the Society:

J. F. Watt, Portland, Oregon.
May H. Whitney, Portland, Oregon.
G. W. Biggers, Union, Oregon.
O. F. Willey, East Portland, Oregon.
L. J. Estes, Baker City, Oregon.

The application of R. Price, of Medford, was laid on the table for one year, as there was some doubt in regard to his eligibility.

Society adjourned until 2 P. M.

AFTERNOON SESSION.

Meeting called to order at 2 P. M. President S. E. Josephi in the Chair.

Discussion on Dr. Fulton's paper being declared in order,

Dr. Saylor said, Mr. President: In order to discuss this subject intelligently, it would require time and previous preparation; therefore, my remarks will be general in nature, and somewhat limited. The main point of discussion, as stated by Dr. Fulton, is non-interference by way of probing gun-shot wounds, and in general an advocate of conservative surgery. The general tendency of the profession is towards conservative surgery, especially in gun-shot wounds. The absolute necessity (as was formerly entertained) of removing all and any kind of ball from the body is not generally practised by modern surgeons. The living experience of those who have been, and are now carrying from one to half a dozen bullets in the body, received twenty-odd years ago, proves that their mere presence when encysted is not dangerous or even detrimental to health. As to the propriety of non-interference in all cases, as advocated by the Doctor, I can not concur in. I believe, as a general rule, gun-shot wounds of the thorax and abdomen should not be probed, but wounds of the extremities should be probed, especially those produced by balls of large caliber, as foreign substances are liable to be carried into the wound, such as pieces of clothing, etc., causing suppuration and

abscess. Balls of small caliber, if lodged in muscular tissue, will do no harm if not removed, and should not be disturbed with the probe.

Dr. Strong said I have, for a number of years, recognized the views so plainly laid down in the paper just read; and have been governed by them for some time in my practice, both in private and in the hospital.

Two points are pretty well established, with reference to wounds made by lead balls. First; that, given the entrance, and even the exit, of a ball, you have no rule by which you are enabled to tell its course with any degree of certainty. Secondly; that lead is often innocuous in the system.

I think it is inexpedient to open up the wound by probing the track, and thus admitting air to an otherwise sealed wound. The known presence of other foreign bodies than lead, might make it necessary to vary from this rule.

In most cases, however, it will be better to wait till the track begins to suppurate. I can, at this time, recall two cases in my practice bearing upon this point. About twelve years ago, one man struck another upon the chin with a loaded derringer. At the same time discharging the weapon while the muzzle was in contact with the chin.

The ball passed downwards in the median line, and probably lodged somewhere near the bottom of the larynx, or along the trachea. Following the old rule, I probed for it, but not finding it, left the ball there; and, if the man is alive, it is there to-day, and has never caused him any trouble.

About a year ago a man attempted to commit suicide. He placed a derringer to his temple and fired it. The line of entrance seemed to be directly into the brain, and there was a pulsating mass filling up the place where the ball entered. He was perfectly conscious, but somewhat dazed and stunned.

I was very desirous to know whether the ball entered the brain or not, and examined very carefully, but could find no wound of exit, or any trace of the ball having passed between the scalp and the skull. Dr. H. E. Jones, who was called in consultation, agreed with me upon the point of non-interference.

The man made a good recovery, and is now attending to business, without any trouble, so far as I know.

A case was reported a number of years ago, in New York City, where a man was shot over the præcordia, and made a good recovery. Years afterwards, during a post-mortem in this case, the ball was found imbedded in the heart.

There are a class of cases which modern surgery has proved it advisable to do more than we have been accustomed to do. Gun-shot wounds into the abdominal cavity have been considered the most fatal of wounds.

Whenever, either by a rise of temperature or otherwise (but not by probing, for the ball may not have entered the abdominal cavity), we are satisfied that the ball has entered the cavity of the abdomen, it is safer to make a free incision through the parietes, stop all bleeding, properly sew up all wounds in the intestines, and thoroughly clean up all the parts and close the wound. A case has been reported in New York City of the abdominal cavity having been opened, and seven wounds of the intestines were sewed up, and the man recovered. There may arise a medico-legal question with regard to probing this cavity. You will all remember that it was publicly stated in the trial of Stokes, for killing Jim Fiske, in New York City, in 1872, that Jim Fiske was not killed by Stokes, but by the surgeons probing the wound in the abdomen.

Dr. Fraser said as a rule, I believe in conservative surgery; but conservatism, like everything else, may be carried to the extreme. Meddlesome surgery, like meddlesome midwifery, undoubtedly often proves injurious to the patient; but, on the other hand, active interference on the part of the obstetrician or the surgeon is often necessary to save life.

To me it seems just as reasonable to follow the advice we sometimes see laid down, to never interfere in a case of obstetrics, but in all cases, under all circumstances, to let nature take her course, as to adhere strictly to the rule that gun-shot wounds should never be probed. If I am called to a case of gun-shot wound, and from its appearance have reason to believe the ball has entered the cavity of the thorax or abdomen, I should consider it a duty to

my patient to satisfy myself on that point, as my management of the case would depend very greatly upon the gravity of the wound.

If the bullet has entered the thorax, surely probing to that extent could do no harm. If the abdomen has been penetrated, the surgeon is not only justified in probing the wound, but if the symptoms indicate it, the cavity should be laid open to ascertain if the viscera have been wounded, and, if so, he should endeavor to repair the injury.

If a flesh wound, the surgeon should ascertain if pieces of clothing have been carried into the wound, and, if so, they should be removed, if possible, to prevent extensive sloughing and possibly blood poison. Dr. Fulton has said in his paper that a bullet remaining in the body can do no harm. This is a statement which is generally true, but to which we find many exceptions; for while it is true that bullets have remained in the body many years, producing no inconvenience, yet they may press upon some nerve, and cause excruciating pain, and possibly local paralysis, and if lodged in the foot, hand, leg, forearm, or joints, serious results are almost certain to follow. The bullet should in all such cases be removed; but repeated and aimless probing should be condemned. Here we call to mind the case of our lamented Garfield. The great majority of the profession justly criticised and condemned the repeated probing in this case, but it does not follow that no gun-shot wound should be probed.

Mrs. Dr. Owens-Adair said as I am a lady physician, it will not be necessary to say that I have not had much practice in gun-shot wounds. I would, however, like to mention a case in support of Dr. Fulton's views. In the University of Michigan, there is preserved in alcohol a deer's heart, which was sent to Prof. Ford, I think from Idaho or Dakota. This deer was shot while in excellent health. While dressing it, a scar was discovered on the heart, in the region of the left ventricle. When the organ was opened, a large slug ball was found imbedded in the tissues. Nature had thrown a strong protecting wall around the ball, and thoroughly closed up the road which it had made on its inward journey.

Prof. Ford has no superior, and perhaps no equal, as a teacher of Physiology and Anatomy. It is his custom to make use of this specimen, along with others, year after year, to impress upon his students the great necessity of non-interference in most cases of gun-shot wounds.

Dr. Fulton, in closing, said I admit that my paper is not complete, although it has accomplished my desire. I wanted to have the subject discussed. In answer to Dr. Fraser, who has differed from me, I would say that almost the same reasons he gives for probing I would give for not doing so. To probe a wound of the thorax, simply to arrive at a diagnosis, to satisfy your own mind and the mind of the patient, when your knowledge obtained would not help you in your treatment, and when the method used to obtain that knowledge is liable to do your patient a fatal injury, it seems to me would be poor satisfaction both to the patient and yourself. If the lung is wounded, there are other ways of detecting it than by probing.

In the abdominal cavity, probing can certainly do no good, but, for reasons easily seen, is dangerous. There are certain reliable signs of perforation or wounding of the viscera by which we may be guided, and by which we may arrive at a diagnosis, without subjecting our patient to the dangers of probing, and, at the first indication of visceral injury, you may perform a loparotomy. Even if you should probe the wound, you might fail to detect a perforation. The bullet might have slipped two or three inches between the muscles before perforating the peritoneum. Therefore, I consider probing abdominal wounds wrong and dangerous.

Concerning wounds of the extremities, I can see no need for probing. The ball does no harm, and if it does then is the time to remove it. I can not agree with Dr. Fraser when he says the probe does no harm in wounds of the extremities. The history of the Franco-Prussian war has taught us that patients do better when their wounds are not probed. A reason given for probing is that you may be able to detect a fracture. Certainly we should be able to detect a fracture without the aid of a probe.

However, I do admit that there are exceptional cases where probing may be permissible, but these cases are rare, and the surgeon should be able to detect them.

Dr. Strong: Did you say you would not probe in any gun-shot wound? You make a difference, I suppose?

Dr. Fulton: I say it is a general rule I have given, to which there must be exceptions.

Dr. Strong: In the remarks, I presume, where gun-shot wounds are mentioned, the speaker refers to lead as the missile. Iron would make a difference. I would probe for iron, if I thought it was in there.

Dr. Fraser: I would ask the Doctor, if he was called to see a gun-shot wound of the thorax, when, to all appearances, the ball had entered the cavity, would he take any step to ascertain that fact; and would he dress the wound, and leave his patient without ascertaining whether the bullet had actually penetrated the cavity or not?

Dr. Fulton: There is another way of diagnosing that trouble, and known to all of us; then why use the probe? The danger is too great, and the good accomplished amounting to nothing, that I fail to see how the surgeon is justified in probing this kind of a wound. It is true, you have satisfied yourself, but, beyond that, what good have you done? I certainly would not probe the wound. I would give opium, to keep the patient quiet, and leave him alone.

The Executive Board having reported favorably on the applications of A. D. Bevan and H. C. Smith, of Portland, they were elected active members of the Society.

The Society then proceeded with the annual election of officers, which resulted as follows:

J. W. Givens, of Salem, President.

Holt C. Wilson, of Portland, Vice-President.

E. P. Fraser, of Portland, Secretary for three years.

C. C. Strong, of Portland, Member of Executive Board for five years.

Dr. Givens, President-elect, asked to be excused from attendance after this day. His request was granted by the Society.

Dr. G. C. Lane, of Portland, then read a paper on "Sprains."

Dr. O. S. Binswanger said although I use hot applications

in form of immersion of the sprained limb in hot water, when seen right after the injury, I can not understand why the use of cold applications should be without benefit to the patient, as stated by Dr. Lane.

The Doctor thinks that cold applications are not as penetrating as hot ones, and attributes to that the failure of the former to do good in cases of sprain. My opinion is that cold applications are also good therapeutic agents in these cases, and that they are just as penetrating as hot ones, in fact more so, since the body can stand a greater deviation from the normal temperature downwards than upwards. The difference in temperature between the normal blood-heat and a piece of ice, or any other spray applied to the injured part, is certainly greater than the difference between the blood-heat and any hot application which we can stand with comfort. The good results which are obtained with evaporating lotions, in cases of sprains, can only be explained by a *reduction* of temperature in the injured parts.

A sprain, like any other injury to animal tissue, will set up inflammation, and I don't see why inflammation here should not be affected by cold applications, as inflammations anywhere else.

Dr. Laine (in closing) I wish to say to Dr. Binswanger, I can not give him any intelligent reason why the hot applications should serve the real purpose better than cold, except I think that they do for reasons which I gave. I have tried it, and am satisfied of the fact that the cold applications are not good, an assertion he seems to doubt. Cold applications would not penetrate the deeper tissue. If he means to say that hot applications will not penetrate, I agree with him on that. He will find by practice much better results by application of heat, the only question being whether it is agreeable to the patient, which it undoubtedly is. If any of you ever tried an ice-pack to a nervous, sensitive woman or child, you will agree with me.

By the President: Is the application of cold or heat more agreeable—which do you mean?

Dr. Laine: I mean to say the application of heat is much more agreeable. They always complain of cold, and it cannot be well applied in any other form than by ice-pack. If you put

an ice-pack on, you will find it very disagreeable. The hot applications penetrate deeper than cold applications, and the actual results to be obtained from them will be found that the hot water will produce much better results in practice.

The paper was referred to the Executive Board.

The time having arrived for the consideration of American Medical Association Bill for an Act to establish a State Board of Medical Examiners, the Bill was laid upon the table until the next annual meeting, and the Society ordered the Bill to be printed in the transactions.

Dr. C. C. Strong, of Portland, then read a paper, entitled "Leucorrhœa." Discussion of the paper was deferred until the morning session.

The order of business was changed, and the Society proceeded to select subjects for special consideration at next annual meeting.

Bright's Disease, Germ Theory of Disease, Neuralgia, Urethral Stricture, Senile Diseases, and Cystitis were the subjects selected.

The Society selected Portland as the place for the next annual meeting.

Adjourned until 10 A.M.

Third Day.

WEDNESDAY, June 10, 1885.

Society called to order at 10 A.M. President S. E. Josephi in the Chair.

Discussion of Dr. Strong's paper on "Leucorrhœa" being in order,

Dr. Fraser said, Mr. President: I listened with much interest to the paper of Dr. Strong on Leucorrhœa. There are several points on which we differ. He mentions chronic metritis, endometritis and erosions as frequent causes. I am thoroughly convinced that the conditions referred to are the effects, and

not the causes, of leucorrhœa. If we look for the cause outside the uterus, we will find congestion or inflammation of the connective tissue of the pelvic veins and lymphatics, which will indirectly bring about changes in the uterus which are commonly mistaken for the primary trouble.

In no other part of the body have we such a vast network of blood-vessels as we find in the female pelvis surrounding the uterus. These veins, from various causes, become over distended from some obstruction to the circulation. In this varicosed condition, these veins lose the power of contractility, and they can no longer return, to the general circulation, the blood received by them from the capillaries. The uterus will become larger and heavier, and this increases the difficulty by still farther obstructing the circulation. This is the beginning of prolapsus, retroversions, and flexions of the uterus, and also of leucorrhœa. Long experience in the treatment of diseases of women has convinced me of the correctness of the statement first made by Dr. Emmett, that "chronic metritis and endometritis do not exist, and that inflammation of the uterus, strictly speaking, can exist only in an acute form;" but its products may remain for an indefinite period, and the term chronic inflammation, as applied to the uterus, only serves to give erroneous impressions of the pathology and treatment of uterine diseases.

Inflammation of the uterine body never occurs, except after parturition, and these conditions, which are commonly held to be the direct results of inflammation, are due wholly to obstructed circulation in the organ, caused by pathological processes in the neighboring parts.

I know of but one cause of uterine leucorrhœa located primarily in the uterus, viz.: laceration of the cervix. The discharge from these injuries is usually irritating, and sooner or later produces erosion of the os and cervix, the mucous follicles become enlarged and diseased, and local applications to the uterus are necessary to effect a cure.

Here I wish to speak of the use of caustics, recommended by Dr. Strong. Only two or three years since I was very enthusiastic over the use of fuming nitric acid, as an application

to the mucous membrane of the cervix, to the endometrium, and to eroded surfaces of the cervix. Now, I hold that such treatment is not only irrational, but positively hurtful. The leucorrhœa is only an attempt of nature to relieve an obstructed venous circulation, and the erosion is simply a surface from which the epithelium has been destroyed by the irritating discharge flowing over it.

We can, in this way, check a profuse leucorrhœal discharge, and the patient may apparently rapidly improve in health, but as the primary cause of the discharge still remains, the erosion and leucorrhœa must soon return. Nitrate of silver I never use, unless I have a patient whose life and strength are fast failing, from the great loss of albumen in the form of leucorrhœal discharge; then I use it freely, for the purpose of destroying the mucous follicles, so that no farther discharge can take place. I seldom apply carbolic acid to the uterus, but use creosote tar, or impure carbolic acid, as prepared by Dr. Squibbs. It is not a caustic, as is carbolic acid, but an alterative and astringent, and exerts, I think, a slight anæsthetic effect. I also use, for local applications, Churchill's tincture of iodine, but I am gradually losing confidence in the efficacy of all harsh remedies, and believe that better results will follow the use of milder local applications in most cases.

Tannic acid, glycerin, hydrastus canadensis, and eucalyptus are especially valuable remedies. Glycerin has no equal in the treatment of congestion. In consequence of its affinity for water, it produces a profuse discharge which empties the capillaries, and when we understand that it removes only the watery portion of the blood, and arrests the escape of albumen, its value must be appreciated.

Hot water is a very valuable remedy, if properly used; and while I do not claim that it is a specific, or that it is useful in all cases, I am quite confident that hot water has a wider range of usefulness, and will do more in effecting the permanent cure of a larger number of so-called uterine diseases than any other remedy with which I am acquainted; but, as commonly used by physicians in general, it will do more harm than good. The details laid down by Dr. Emmett, who first recommended

it as a remedial agent, should be strictly carried out. As this is, or has been, difficult to do in private practice, hot water has not become a popular remedy. Dr. Strong does not use enough water, the temperature is too low; the constant flow from a fountain syringe which he recommends, does not have the same effect in producing contraction as if thrown into the vagina with force with a bulb syringe. From three to five gallons of water should be used at a time; the temperature should be from 120° to 130° F. The water may flow from a fountain syringe, but through a bulb, and the flow should be frequently interrupted, by compressing the bulb and throwing the fluid into the vagina with as much force as possible. Each injection should continue from twenty to thirty minutes.

In order to carry out these directions, and overcome the discomfort, annoyance, and expense attending the use of the various contrivances for receiving the injection fluid as it leaves the vagina, I have invented this instrument, which I call an intra-vaginal cup syringe. I have used it for several months. With it, vaginal injections of hot water may be properly administered with the greatest facility, and with entire comfort to the patient.

As a description of the instrument, with woodcut, will appear in the Transactions of the Society, I will not occupy your time with it now.

Mrs. Dr. Owens-Adair said Dr. Fraser has discussed several points which I should have touched upon, but, as we agree upon the whole, I will confine myself to only three points. Dr. Strong said, yesterday, that "every woman, in this climate, ought to be required to wear long-sleeved flannels all the year round." To me and, I believe, to any other healthy woman, this would be simply torture. That our women are more delicate than their brother man, I am willing to admit, but that this is due to a false education and an improper bringing up, I do believe, and will endeavor to maintain. Give our girls an equal chance with our boys; teach them to walk, to ride, to row, to skate, to drive, to box; tell them that they must have out-door exercise to develop their muscular and physical system, in order that they may develop into *beautiful*

and *attractive* women, and in a few short years we can show you women that will bless this nation, and will give to our country sons and daughters that are worthy the name of men and women. I believe that most of the diseases with which our women are afflicted are due to their mode of dress and indoor life. No class in society has so great a power in bringing about a change in this much desired direction as physicians themselves; and I look upon it as a sacred duty to teach my patients how to improve their health and strength by strict attention to the laws of health.

I have, myself, been so delicate that I could not remove my boots during the evening for slippers without subjecting myself to a cold; and, at eighteen years of age, I supposed I should never be without the back-ache. But for years I have not realized, through suffering, that I had a back. I am now forty-five years of age, the oldest of six girls, and I am to-day in appearance, in action, and in reality, from a physician's stand-point, the youngest of the six. And why is this? Not because nature was kinder to me, and gave me a stronger body; but because I have learned the laws of health, and I obey those laws.

2nd. Dr. Strong gave pruritis as one of the causes of leucorrhoea. He may be correct in this, but for myself I have never seen a case of pruritis in woman in which I did not find the patient suffering from an acrid leucorrhœal discharge, which, as a rule, had annoyed her for months previously.

In most cases a proper knowledge of the use of the syringe would not only have cured, but would have prevented, this one of the most annoying of diseases. But here again comes in the want of a proper education. Girls, instead of being taught to have proper respect, and to take proper care of all parts of their bodies, they seem to be not only shocked, but horrified, at the mere mention of any attention being paid to their genital organs. And mothers of large families will annoy a physician, by persistently asking over and over again, "How can a girl have womb disease?" To such an extent has custom brought about this state of affairs, that few physicians

have the courage to even suggest the possibility of such an existing disease, for fear of a dismissal.

3rd. The Doctor gave, as his opinion, that no woman could properly use an injection for herself. I cannot agree with the Doctor in this. The syringe is an instrument used for cleansing and remedial purposes. In either case it is essential to balloon the vagina. This can easily be done with the aid of a fountain syringe, even while the woman is sitting over a vessel, simply by compressing the labia, with the thumb and index finger, around the tube, and retaining the water in the vagina. Thus, the process of ballooning and emptying the vagina, may be continued for any length of time.

Dr. May H. Whitney said the relief of pelvic congestion, through the instrumentality of the hot water douche, is a valuable expedient in the removal of leucorrhœa, and the uterine and vaginal diseases which give rise to it. The syringes in common use, the bulb and the fountain, are used in the sitting posture, which does not allow the full dilatation of the vagina necessary for cleanliness, or for the best effect of the water. This incomplete use of the agent is overcome by the cup syringe shown you by Dr. Fraser, which secures the full benefit of the application with no inconvenience or fatigue to the patient, while the medicated baths, made available by the use of the stop-cocks, are invaluable. I have been using the cup syringe for some time, and have discarded all others for office practice.

Dr. Fulton said I was surprised to hear so long an article under the heading of leucorrhœa. The term applies only to a symptom ; yet this symptom is frequently treated, as well as written of, instead of the disease which produces it. However, if I dislike the title, I do like the paper.

Concerning hot-water injections, I would say that this is a remedy which may be used for evil as well as good. I have seen women droop and fade, simply because they were exhausted and worn out by the long and continued use of hot injections. This is a remedy which requires discrimination and common sense in its use, and when a patient is advised to use hot injections, there should be a limit established both as

to the amount of water to be used, as well as to the number of days they shall be continued.

Pertaining to uterine troubles in general, it has seemed to me that the attending physician has it frequently worse than the patient, and some little trouble that requires months of the application of caustics and barrels of hot water to cure, might be cured in a few weeks by so simple a treatment as rest.

Dr. Strong said, in closing, I admit the danger of running any special branch of medicine into the ground. But no one can practise for any length of time in our larger cities without being fully impressed with the number and importance of uterine lesions as the cause of so many of the ailments our female patients complain of.

Mrs. Dr. Owens-Adair refers to her own life as exemplifying the freedom of women from uterine diseases. It is only necessary for the members present to look at her plump, rosy form to take her at her word, so far as it relates to her own physical condition.

And should she enter the office of any of our embryo gynecologists, disguise herself as she might, I very much doubt whether the most enthusiastic could be induced to say that she was troubled with any uterine disease.

The class from which our mothers came, and who they were worthy representatives of, is rapidly passing from the active stage of life, or has already passed away. Those who are taking their places, and are now, or are to become, the mothers of our children, have not the same endurance and freedom from uterine complaints.

I think I hazard nothing in saying that there are not any more exceptions than are necessary to establish the rule; that the women of the present day in Oregon cannot perform half as much work, or endure half the strain, mental and physical, that our mothers, the pioneer women of Oregon, underwent.

The causes of this deterioration are too extensive, and are not involved in this paper. Reference has been made to the use of flannels, and objections raised on the score of increasing heat of the body. I do not think that they have this effect. I advocate in my family and in practice the wearing of high-

necked and long-sleeved wrappers and flannel drawers. I am speaking of what are known as silk and merino flannels as found in our stores.

I wear them myself, and all my family do, the year round, and none, not even the children, would consent to go without them, even in the hottest weather.

The benefits derived from their use is the maintaining of a more uniform condition of the body, and preventing sudden changes of temperature.

I will dismiss the subject of the syringe, by saying that its use, for the purpose of cleansing, is as different from its use as a therapeutic agent as is the use of warm water to wash our faces from the use of hot water as a hæmostatic.

The failure to obtain good results from uterine treatment is more often due to a lack of discrimination as to causes than to any failure in the system itself.

While not saying that every case of hysteria is due to uterine causes, I do say that many of the nervous troubles of women are due to uterine causes, and can be removed if properly treated.

A woman in this city who had been treated by some of our best physicians, suffered from an occipital headache for over fourteen years. It was with great difficulty that I could convince her that it might be due to uterine causes, and obtain an examination.

Treatment to the diseased uterus gave immediate relief.

Mrs. Dr. Whitney spoke of dilating the external os. In some women troubled with leucorrhœa you will find the external os very small, but if you will take a small silver probe and bend it at a sharp angle, making a short arm not over a fourth of an inch long, you will generally discover that just back of this opening is quite a cavity.

In these cases the external os may be cut or stretched, thus giving the discharge a free exit, and enabling you to make applications to the parts.

Dr. Fraser speaks of some forms of inflammations of the uterus. As they are not directly concerned in this subject, I will not take up these diseases. There is one thing I desire to

call your attention to, that is, to his remarks on the use of nitrate of silver. The doctor is not specific enough in his use of terms, as there is a vast difference between the solid nitrate of silver and its solution at various strengths. I do not use the solid form, and have not for years; but I do use solutions of various strengths, especially in vaginitis.

I do not consider the solution of nitrate of silver as a caustic.

The pernicious habit some have of making an examination and applications every day is a very bad one, and should be strongly condemned. It has a tendency to unduly concentrate the thoughts of the patient upon herself, and so making a chronic invalid. Secondly, it is useless, and therefore unnecessary.

Applications should be made, as a general rule, not oftener than every other day, and usually every third or fourth day is better. We should attend to all details as to dress, food, exercise and rest.

As to the latter, rest, unfortunately we can exercise but very little control, as many married women cannot make their husbands fully appreciate the necessity of complete rest from the marital act.

I do not propose to fully discuss the pros and cons of injections.

I am somewhat surprised at the statement of Dr. Fraser, that he is in the habit of giving them in his office.

The best I can do is to give minute directions as to their use, insisting upon the recumbent position, and the use of a large quantity of *hot* water.

An injection, sitting over a vessel, is of no use in a therapeutic point of view. I have not tried the syringe shown by the Doctor, but am inclined to give it a fair trial.

Again I call your attention to the necessity of care in your diagnosis, if you wish to successfully treat leucorrhœa. Do not be influenced by the extremist on either side.

A thorough knowledge of this branch will give you as much satisfaction as any department of our noble profession.

President S. E. Josephi then read his address on retiring from the Chair, which was referred to the Executive Board.

Dr. A. D. Bevan then read a paper, entitled "Radical Cure of Hernia," and gave history of several successful operations.

The paper was discussed by Drs. Mackenzie, G. C. Lane, Fulton, and Dodson, and referred to the Executive Board.

The President announced the following committees for the coming year :

ON OBITUARIES.

C. C. Strong, of Portland.
J. A. Fulton, of Astoria.
O. M. Dodson, of Baker City.
Reese H. Holmes, of Salem.
J. C. Whiteaker, of Cottage Grove.

ON LEGISLATION.

E. P. Fraser, of Portland.

Adjourned until 2 P. M.

AFTERNOON SESSION.

Society called to order at 2 P. M. Vice-President H. C. Wilson in the Chair.

Dr. Fraser read a paper on "Colds" which was referred to Executive Board.

The Secretary then read his annual report which was also referred to the Executive Board.

There being no further business, the meeting adjourned *sine die.*

E. P. FRASER,
Secretary.

Meeting of the Executive Board

Pursuant to call, the Executive Board met at the office of the President, August 11, 1885. Meeting was called to order at 3 P. M. Members present: Drs. Watkins, Glisan, Wells and Strong.

On motion, all papers read at the annual meeting on subjects selected by the Society, were ordered published in the Transactions.

A motion to publish the paper read by Dr. B. A. Owens-Adair, on "Suppression of Urine in First Labor at Full Term," was lost.

The papers of Drs. Givens and Fulton were ordered published.

On motion, Drs. Wells and Strong were appointed a committee to audit the Financial Report of the Secretary.

The subjects selected for special consideration at next annual meeting, were assigned as follows:

Neuralgia, S. E. Josephi.
Bright's Disease, W. H. Watkins.
Senile Diseases, L. L. Rowland.
Urethral Strictures, R. A. Urquhart.
Germ Theory of Disease, K. A. J. Mackenzie.
Cystitis, G. M. Wells.

Meeting adjourned.

E. P. FRASER,
Secretary.

PREVENTIVE MEDICINE.

AN ADDRESS DELIVERED BY THE RETIRING PRESIDENT, DR. S. E. JOSEPHI.

Fellow members of the Oregon State Medical Society: As time, in its resistless course, marches onward from year to year, from decade to decade, until each turn of the centuries marks an epoch in the world's history, there is brought to our view a vast pyramid of discoveries and inventions, composed of stones hewn in all ages and representing an amount of labor, application and study most stupendous in the aggregate.

Our own century has contributed most generously to this immense and enduring structure, and while the crude results of former workers no doubt prepared and paved the way for the brilliant discoveries of our own age, it is certain that the people of the present century have witnessed, and are yet to witness, the brightest and most splendid aggregation of discoveries and inventions that has ever been known in the same period of time.

While all branches of the arts and sciences have felt the impulse and benefit of this elevating vitality, the broad field of medicine has been enriched by the discovery of facts and the improved application of principles, and has been thereby inestimably benefited and shorn of much that was obscure and unsatisfactory. Among some of the many advantages accruing to us, by reason of the new lights by which we are guided, are the means at our command for the prevention or modification of disease.

A prominent gentleman of this city some time since expressed to me surprise that physicians did not take a more active part toward the prevention of zymotic diseases. This is simply an index of the fact that the laity do not understand or appreciate how prominently this department of medicine has been brought forward and studied and practised in the pro-

fession. The creation of national and state boards of health and of municipal health officers is really a long stride in the direction indicated. But while the people look to the doctors to put into practice the measures necessary for the prevention of disease, they overlook the important fact that professional effort can do nothing practical without the hearty co-operation of the people. For years the profession, as individuals, as societies, associations and academies, has promulgated the doctrine that many diseases are preventable, or, at least, subject to such modifications as to destroy, in great part, their virulence and danger. The researches of Koch, Pasteur, Sternberg, Klein, Tomassi Crudelli, Freire and many others are, viewed in a practical light, but the initial steps toward preventive medicine, in the various fields represented by the respective investigators. Standing upon neutral and unprejudiced ground, we may well avoid the views of the extremists in the matter of germs as disease producers, and concede that many of the claims of those who urge bacteria and micrococci as pathogenic germs have been fully proven, though others cannot yet be said to be substantiated. How these germs act, whether by a power in themselves, or by irritation by presence, or by special poisons produced by the parasite itself, just as the abnormal growths upon various plants, known as galls, are supposed to be produced by the irritant action of some poisonous liquid introduced by the sting of an insect, we are not yet fully prepared to say; but this we do know, that experimentation with pure cultures and attenuated virus has successfully demonstrated that, in the case of some diseases of a most virulent character, a modified type of the specific disease may be induced, devoid of danger to life, as a rule, just in the same manner as inoculation of variolous virus produces a modified smallpox. These facts have been shown to be true, in some degree at least, by results of inoculations of attenuated cultures for some of the most grave diseases. From December 22, 1884, to March 22, 1885, Dr. Domingo Freire inoculated 1109 persons with his protective yellow fever virus. No accidents followed, and in almost all cases there was slight rise of temperature and some

constitutional symptoms.* I am aware that doubt has been thrown upon the reliability of Dr. Freire's observations, but until these doubts take a more definite shape than mere insinuations we ought to accept the results when reported in a definite and specific manner.

Recently, in the telegraphic columns of the secular press, has been reported a large number of successful inoculations for cholera in Spain, and while we must acknowledge that these results, in the main, are not yet of sufficient standing or magnitude to be entirely satisfactory, still they prove the tendency of professional thought and study toward the discovery, not only of preventive measures directed against some of the great scourges of humanity, but also of adequate means for the substantial modification of disease. How far, or in what manner, the protectives will act in the warding off of virulent types of diseases, which are not self-protective in their character, we cannot now say, but it is hoped the advance of science will solve this difficult problem.

But while modification of disease is to be desired, where prevention cannot be accomplished, still the attainment of the latter object is the "ultima Thule" of our aims and desires. And not only so, but prevention is the only way in which we can hope to secure the effective co-operation of the people at large. Aside from all theories of bacteria, micrococci, spirilla, etc., we have had ample evidence of the fact that collections of decaying organic matter breed disease, and that cleanliness removes, to a very large extent, the tendency to the occurrence of like disorders. We need not go far for the proofs of the truth of this statement. The reports of the health boards upon contagious diseases clearly show a diminution or increase of sickness in direct ratio to the cleanliness or filth of their official territory. We know that destructive typhoid fever epidemics have been traced to contaminated waters, and in support of this latter statement, in addition to the convincing evidence we have heretofore had presented, we may refer to the recent epidemic at Plymouth, Pa., where the source of the disease was clearly traced to the excreta of a

* *Medical Record*, May 16, 1885.

patient who had contracted the disease in Philadelphia. His discharges were thrown out upon the snow and, when this melted, were carried into the brook which supplied the town with water; in one short month over 1,000 persons, out of a population of 8,000, were attacked, with about 100 deaths.

The well-known diffusion of malaria from illy-drained lands and stagnant pools has but to be mentioned to suggest a prolific source of sickness and ofttimes death, and the carrying of contagion in the clothing from the sick to the well, in some of the eruptive fevers, is too well substantiated to be successfully refuted. With the general knowledge of the influence productive of sickness which the people possess, it would seem that one of their highest endeavors would be to ward off disease by such attention to hygienic conditions, and the adoption of such measures, as would be best calculated to subserve the end in view. But while the trite axiom that "an ounce of prevention is worth a pound of cure" seems to be accepted without question as to its truth, still humanity at large, as a rule, seem unwilling to make any special exertion against dangers that are not visible, though, when confronted by them in tangible shape, they will make every sacrifice to drive away that which a comparatively trifling outlay of money and energy at the proper time would have prevented from appearing at all. It is upon the people that the responsibility rests for inaction in these matters of public hygiene. What is needed is proper organization for the carrying out of the principles of preventive medicine. "What is everybody's business is nobody's business," and so filth heaps accumulate, sewerage systems remain inadequate, and the poisonous effluvia, breeding disease and death, is continually mixing with the air we breathe, while men stand around and wonder why some one does not take measures to correct the evil. The state should have a properly organized board of health; municipal corporations should have similar organizations. Among other duties, the members of these boards should see that individual householders kept their premises, including sewerage, etc., in a cleanly condition, and that outlets for waste were adequate to supply the demands upon them. It is true many individuals, from their own

sense of what is needed, look carefully to the cleanliness of their premises; but of what avail is such a course to a man or his family if his neighbor persistently neglects these same duties. I know that in some places (Portland among the number) non-professional officers are empowered to abate nuisances when complaints shall be made, but how few cases of defective drainage and sewerage, and neglected garbage heaps, or the insidious pollution of drinking water are brought to light in this way. Means should be taken to regulate the placing of traps for drains and waste-pipes in houses, to promote cleanliness around dwellings and in streets and alleys, for the removal of all garbage, and to prevent its going into drains and sewers, to insure the carrying off of sewer-gas above the breathing level, etc.

I do not wish to be considered an alarmist, but in connection with this subject, and as an incentive to the importance of its notice, an allusion to the anticipated visitation of this continent by cholera in the near future, may be excused. What has been said of its expected presence on the Atlantic seaboard will apply, with perhaps a modified force, to the Pacific slope.

In an address before the Maryland Medical and Chirurgical faculty, the president said: "There is little ground for doubting that either this or the ensuing year the North American continent will be visited by this terrible disease, and it has been fully demonstrated that, in spite of the highest attainable efficiency, quarantine is of but little value. We need scarcely hope to escape its invasion by land, should we successfully shut it out from our harbor. What is best, then, is clearly to put our city in such condition as will present the most unfavorable condition for its development; and this, it should be clearly understood, cannot be done by the authorities alone. It can only be effectively done by the cheerful, hearty and intelligent co-operation of all classes of citizens." This language, used in the city of Baltimore, is equally applicable to our own city. And this, not only as regards the dreaded scourge under consideration, but also as a barrier against the inroads of such diseases as scarlet fever, diphtheria, typhoid fever and like

affections, whose fearful influences have swept from earth some of the brightest and dearest jewels in many a family crown.

Our duty in this matter plainly lies in urging upon the laity the vital importance of applying the principles of prevention that have been enunciated, but further than this we cannot go. With this, our professional duty and responsibility, in this regard, ends and that of the citizen begins. If he heed not the warning voice of experience and scientific research, as applied to these most important elements of life, surely we should not and ought not to be blamed for the consequences of his neglect.

THE DIAGNOSIS OF INSANITY.

BY J. W. GIVENS, M.D., OF SALEM.

A knowledge of the symptoms of insanity, and how to discover them, is important to all physicians, as our laws authorize the courts to call any physician within their respective jurisdictions to testify, as an expert, in any alleged case of insanity; and also for the reason that the physician may, by a recognition of the early symptoms of this malady, often enable his patient to check its development.

In view of this important trust devolving upon us from the courts and from our patients, and the fact that this subject is rarely considered in our societies, I hope that a review of the evidence by which we are guided in discharging this trust will be profitable to us at this meeting.

The laws of this state say, that when a person is dangerous or suffering, by reason of insanity, he shall not be held responsible for his acts, and shall be entitled to the care of the asylum.

The law does not say in what this insanity consists, or how it is to be discovered, but relegates the question largely to the physician; and now, we may ask, how are we to know when insanity exists?

A knowledge of the substance of insanity presupposes a knowledge of the substance of mind ; but there are many theories, and much unknown, in regard to the substance of both. It is not the purpose of this paper to advocate the claims of any theory concerning the substance of insanity to your acceptance ; but I think we shall do well to keep a broad conception of its substance, that, in its treatment, we may not become narrowed in our therapeutical resources.

But whatever be the substance of insanity, or whatever be our conception of it, it must be known to us all by the same evidence ; and, at the risk of resting under the imputation of considering symptoms without conditions, I ask your attention to the evidence by which we recognize insanity.

All observers are substantially agreed that this evidence is to be found chiefly in the changes of the mental phenomena of perception, thought and will-power, as recognized in speech and action, which constitute, not the substance, but the expression of insanity.

In addition to these direct symptoms, hereditary tendencies, physical conditions and causation may offer corroborating evidence. We see, then, that we are to explore a field where our physical diagnosis, our microscope, our crucible, the temperature, the pulse, and all physical conditions, though invaluable in treatment and prognosis, must take a secondary place in guiding us to the truth in *diagnosing insanity*. As there is no absolute standard of mental health to which all must come, but as each individual has his own normal standard, it becomes necessary to know the normal standard of the person's mind whose phenomena we are considering, as revealed in that person's normal acts and speech.

In making the comparison between the patient's present and former mental condition, it is necessary for the physician to learn what he can of the person's ancestry, childhood and education, his religious belief and practice, his domestic relations, his methods and success in business, his temper whether even or variable, and the bodily ailments he has had, or may have, at the time of the examination.

For part of this information the physician will often have to

trust to the testimony of others. If there is no one to give him this information, he must make for himself, upon his experience and knowledge of men sane and insane, a conception of what the patient was in health. This examination will not only enable the physician to have a fair knowledge of the normal mental state of his patient, but a little experience will enable him to know what he may expect to find if the person is insane; for not infrequently insanity makes itself known chiefly in an exaggerated and uncontrolled exhibition of self.

What amount of departure from the normal standard is necessary to constitute insanity is often a difficult question to answer; but that a fair degree of accuracy is attained on the side of declaring persons insane is evidenced by the fact that it is exceedingly rare for a patient to be received at an asylum whom time does not show to be clearly insane. Experience demonstrates that many more persons are pronounced sane who are insane, and entitled to the care and protection they need but refuse, than there are sane persons declared insane; and that infinitely more misery, sorrow and harm come from not early recognizing and treating insanity when it exists, than results from treating cases of sanity as though they were insane.

ABNORMALITIES OF MENTAL IRRITABILITY OR DEFECTIVE MENTAL INHIBITION.

Of all the abnormal mental phenomena observed in insanity, abnormalities of mental irritability are most common, especially in its early development. It will be observed that the patient does not make that response to mental impressions which he did in health.

Impressions of surroundings, of persons, things or words excite him to undue or different expressions to what they did in health.

He is petulant and complaining, or he may fly into a passion over a matter which in health he would have treated with calmness or, at most, a temperate disapproval.

Or he may laugh, scream or weep without any apparent cause. Or his mental irritability may be such that he is dull, stupid, and irresponsive to external influences with an absence

of that active, intelligent response to influences which characterized him in health. With this defective mental inhibition is occasionally found a special tendency to suicide or homicide, though these are usually a result of delusions of the intellect.

This exalted or depressed mental irritability is not, of itself, sufficient evidence to establish legal insanity, unless it is so great as to make the patient dangerous from want of self-control, or so irresponsive to influences as to render him helpless; but it almost invariably precedes fully developed insanity, and should always receive the early recognition and treatment of the physician.

Dr. T. C. Clouston, in his late work on "Mental Diseases," speaking of the importance of recognizing early symptoms of insanity, says: "If the first signs that betoken danger to the mind health were observed, and the first symptoms of disease noticed, and their true significance apprehended, every physician in practice knows that their further onset and progress could often be arrested." This abnormal mental irritability is the chief symptom of the insanity of Mrs. ——, aged forty-five. She is generally quiet and orderly when her surroundings are fixed and agreeable, but if crossed or thwarted in the least, she flies into such an ungovernable rage, or "mind storm," as to require seclusion to prevent her from acts of violence. There is also an absence of the intellectual ability which she had in health.

INCOHERENCY.

Incoherency of mental activity, as shown by the patient, going rapidly from one subject to another, or the utterance of a meaningless jumble of words, is a common symptom.

Absolute incoherency is seen only in the worst forms of delirium, but, in a varying degree, it is a common symptom observed among the insane.

The compositions of patients should always be inspected, for, when compared with his former productions, they often afford the best evidence of his insanity.

The following extracts from letters written by three patients, serve as illustrations of incoherency:

"SALEM, OREGON, ASYLUM, July.

"Dear Papa as its very along when last received any letter from you and mama or any of the rest of our family so for and as it makes me feel kind of homesick sometimes but as it is not near so bad as when I first was sent to this place that the reason why I should take now the time and write again and send it to you. Cause that make me wish that this letters will arrive all right and would like to see you all together again and are now having good health," etc.

This was written by a patient suffering with epileptic mania, and is a typical composition of insane epileptics. The next is from a letter written by a patient with chronic mania, and having delusions of grandeur :

"My Dear Friend,—I will pen you a word a short letter, I know it will be well received you will be glad and most happy to do a kind act for me so far from Home and my family. Mrs. —— the lady you know whom came to see me at East Portland and wished I should go home with her I could not go at that time, I was not well, "You thought I should be so" I could stand the storms and then I would not get sick "and have to come back, I am all well now" have been since November." (My mind says "Home") For some days past I was a little out of the "Channel Physically," etc.

The following was written by a patient who was formerly a teacher. Although this letter shows great incoherency, yet the writer, while being taken to the asylum, deceived the police of a town on the way into believing that she was the attendant, and her attendant the patient ; successfully carrying the deception so far as to have the attendant placed in jail all night for safe-keeping while she remained at the hotel :

"Dear ——, Your silent letter was rec-d.— pleased to hear you. — Am well considering circumstances, kind treatment— am well provided for — — — — will set tables — presents — slippers — Buttoned shoes — Cosmetics — unknown friend — friends here — Protection four 4 you and me everywhere — understand ? We have entertainments—hall attached—church— kind, Right yes have plenty of dressing such — — is Ball

next friday evening. C. D. O. D. all by himself. At night now. very sorry hopes. — * * * Remember — She was not sent here, they don't know anything about the winds that blew. List—bed—kick—scream—pain—senseless something —Came—awakened—seen sack—large—darkness long time— Three days elapsed — Dr. —— gone — snow — Hunt—May— Dents—woman—screams—fainted,'' etc.

INCONGRUITY.

Inability of the patient to understand his true relations to his surroundings, thus leading to incongruity of action, is a common sympton. Here it is not the act by itself, but, when considered with the particular person, his station and immediate surroundings, plainly shows that he does not appreciate his environment with that propriety he once did. There are eccentric people who have always defied propriety, and never developed other symptoms of insanity; but when a person of mature years adopts such habits, it is good evidence that his incongruity will not stop short of insanity, unless he receive treatment.

HALLUCINATION OF THE SENSES.

This is a condition where the patient has a perception of something when there is either nothing to create a sensation, or no organ of sense to receive it. Blind persons sometimes have hallucinations of sight. There may be hallucinations of any of the senses, although those of hearing are the most common. Mrs. —— hears her children crying and pleading for her to protect them from wicked persons who are beating them. She is as positive that she hears her children appealing to her as she is that she hears the physician telling her that their cries are only an hallucination of her hearing. She walks the hall in a wild frenzy, threatening vengeance upon the abusers of her children and those who prevent her from protecting them.

ILLUSIONS OF THE SENSES.

Here external objects or impressions appear entirely different to the patient's mind from what they are. There may be an illusion of any of the senses—that of taste is common. Mr. ——, with great depression of mental irritability, noticed that his food

did not taste as usual, and soon became suspicious that it was medicated, or in some way tampered with. These illusions of taste often lead up to delusions of poisoning.

Illusions of sight frequently cause the patient to believe a stranger is a relative or intimate friend.

These hallucinations and illusions of the senses are often found in fair, mental health, for it is a well-known fact that no one of the senses can at all times be freely trusted; but, in mental health, the other senses and the intellect are able to correct for the mind those false impressions: but, in insanity, this sense correction is lost, as well as the ability to discriminate between true and false or perverted sensations, and the patient, when trusting to evidence obtained through this perverted avenue, is wholly irresponsible.

Patients laboring under these hallucinations, or illusions, are often dangerous to themselves or others, for these perverted impressions may be such as to drive them to acts of violence.

DELUSIONS.

A delusion is a false belief, which evidence and argument are not able to displace, and which often becomes the dominant force in the person's life.

The difference between a sane and an insane delusion is not always easy to discover; but generally, in insane delusions, the mind is very intolerant of evidence or argument on the subject, and the self-control is apt to be more or less impaired: whereas, in one who is laboring under a sane delusion, the mind calmly gathers and considers the evidence on the subject, and presents its doubts and difficulties in a quiet manner.

If a person actually has a belief, the result of which makes him dangerous to himself or others, and the effect of evidence is so fleeting as to leave him under the power of the delusion, the law of the land will declare him insane; but before his delusion reaches this point, he may be clearly insane to the experienced physician.

Mr. —— was brought before the court, a few years ago, with a request by his friends for a commitment for him to the asylum. He was a carpenter, had given a cheerful attention to business,

and had been moderately successful. For some time it had been observed that he expressed gloomy views of life, lamented the hard times, though as prosperous as usual. He declared his belief that nothing would grow that year, and the inevitable result would be starvation to many and suffering to all. He talked as do many who have the habit of exaggeration, and affect doleful forebodings which they do not feel. Notwithstanding his deviation from his former quiet, orderly attention to business, the court regarded him as merely an eccentric man, who took pleasure in describing dreadful disasters to befall himself and others, which he pretended to believe, and accordingly ordered him discharged. The man continued to give himself more to the control of these feelings, neglected his business, threatened to kill his children lest they starve, destroyed some property belonging to others, asserting that soon it would not be needed, when he was again brought before the court, and this time committed to the asylum, where he died.

This case is not reported to evince the fact that all persons who indulge in evil forebodings without evidence, should receive the care of asylums; but, that this giving way to such forebodings, and the neglect of business by one who had previously been careful and attentive, was good evidence of a departure from his former mental self, and the sequel proved that early treatment could, at least, have done him no harm. Sadder cases of neglect than this could be instanced, where homicide, suicide, or other harm has resulted, but we should not require such calamities to waken us to energetic, intelligent action in regard to these cases.

These delusions may take the widest possible range of subjects, or be confined to one, or shift from one to another, the mind seeming to embrace belief without any apparent evidence. But not infrequently there is a certain basis of fact for these delusions. Mr. —— was struck on the head by robbers, lost consciousness in the melée, and was dangerously sick for some time. When he recovered his physical health, there remained delusions of persecutions. He was afraid to be left alone, and says he regarded every man as his enemy; was constantly on the point of attacking some one, when first received at the asylum.

The most frequent subjects of delusions are secret societies and

persecution by them, religion, the unpardonable sin, spiritualism, electricity, wealth, power, knowledge, poverty, the generative organs, or personal identity.

In the latter, the patient believes himself or herself to be Jesus Christ, Virgin Mary, Queen, President, bank official, railroad manager, or some animal.

I saw a patient in an eastern asylum who said she was an old, mad cat, and acted in every possible way as she seemed to think an old mad cat would—biting, scratching, mewing, etc.

These delusions are often very perplexing, as no adequate physical condition will be found to account for them. Very frequently they appear to be the outcome of selfishness, indulged until it results in delusions of persecutions; or an intolerable egotism may be so fostered as to culminate in delusions of grandeur; or gloomy thoughts are cherished till depressing delusions take possession of the mind; or day dreaming yielded to until there is loss of personal identity, and the person comes to believe himself altogether different from what he is.

It is true that with this condition of mind often comes ill-health, but it cannot be said, with scientific accuracy, that the physical condition precedes and is the cause of the mental trouble, any more than the delusion precedes and causes the physical ill-health; but it seems more in keeping with sound reason and clear observation to say that they are both due to the vicious mental practices to which we are all more or less prone. It appears that there is a mental physiology, which can no more be safely defied than can the physiology of the body.

A weakened will-power is often found in insanity, and is the chief symptom in some cases.

Mr. ——, a careful business man in an eastern city, was sunstruck, and lay dangerously ill for some time, but finally recovered his physical health, and, apparently, his mental health. His immediate family noticed, however, that he was not so steady in his purposes as formerly, but little was thought of the change. He decided to go west and engage in the cattle business, but had scarcely arrived at his destination when, without much consideration, he decided to go into sheep-raising. He had scarcely announced this intention, when he determined to open a hotel

instead. After carrying out this plan for a few days, he sold out at quite a loss, and entered some other business. In this manner he continued squandering his fortune which he had gained by years of careful, steady work before his sun-stroke. He finally went to a small town with a stock of general merchandise, rented a store and placed his goods therein, but, before unpacking them, decided that another location would be better; so he rented another store and moved his goods into it. He thus moved from one store to another until four stores had been successively rented, occupied and abandoned without once opening his goods; and he finally shipped them out of town unopened. Now take any of his acts by itself, and it is not an evidence of insanity; but when taken together and compared with the acts of his former normal and steady will-power, he appears to have lost that will-power. Still his insanity was not recognized until a fortune had been squandered, his family reduced to want, and he had, under a delusion, committed a lawless act.

In this case there were other symptoms of insanity, though the weakened will-power seemed to be the prominent symptom.

ABSENCE OF MENTAL POWERS.

Here the symptoms of insanity consist in what the patient *does not* perceive, think, will, do or say; and vary from simple loss of memory to absolute unconsciousness. Here, again, it is often difficult to decide whether there is a sufficient degree of failure of mental powers to amount to insanity. The question should be decided in favor of the patient, and if he still has sufficient power of mind to control himself, he should be advised to narrow his work and responsibilities to the smallest possible compass. If he lacks this power of self-control, either from want of perception, failure of memory or want of will-power, he is clearly insane. In this more or less demented condition, the patient is regardless of the proprieties, uncleanly in his habits, and inattentive to his dress and person, does not know the value of property, giving it away or selling it without receiving reasonable value in return.

His eyes have a vacant and aimless stare and often a downcast look; more often the face has a pinched and soured look, as if

grown into an expression of physical and mental torment, with an absence of all glad and intelligent emotions.

This is the mental condition to which all abnormalities of mind tend, and a large percentage of all patients in asylums are of this class. This absence of mental phenomena clearly shows their mental incapacity.

I have said nothing of the classification of the types of insanity, as this is chiefly valuable for prognosis and asylum treatment; but, in diagnosis, it is the purpose of the physician to be able to tell the courts whether the patient is sane or insane, not that he has mania, melancholia, or some other particular form of insanity; indeed, while classification is in its present unsettled state, physicians will do well to keep it out of the courts.

With a fair degree of allowance for variation in symptoms, the foregoing mental phenomena are those usually found in the insane, and it is upon their presence that insanity must be diagnosed. The absence of these symptoms, however, for days or weeks is not always conclusive evidence of sanity, for the periodicity of the malady, or the mental powers of suppression, may be such as to make the patient appear perfectly sane for a time.

The failure of physicians to agree in regard to the sanity or insanity of an individual, is often due to the fact that they have observed the patient at different times and under different circumstances.

PHYSICAL SYMPTOMS.

Sleeplessness is a very common accompaniment of insanity, especially in its inception. Either the patient cannot sleep as long as is his custom, or his sleep is broken and disturbed by dreams.

Restful dreamless sleep for the insane is very difficult to obtain. Headache often troubles the patient, giving him a distressed and bleared expression of countenance.

Abnormalities of digestion are very general, such as loss of appetite, or a voracious and ungovernable appetite, causing the patient to eat in a hurried and jerky manner; constipation, gastric and hepatic tenderness or actual pain, or such a sluggish condition of the alimentary canal as to almost amount to total suppression of alimentary digestion. The skin is often dry and thin, the hair usually dry and lustreless, giving to the patient that bushy, fuzzy

appearance so characteristic of inmates of insane asylums. The hands and feet are frequently cold and clammy, the nails brittle and wrinkled. The muscles are usually soft and flabby. The movements and carriage of the insane are generally slow and heavy, the shoulders drooped forward; occasionally, however, the walk is jerky and irregular. The speech partakes of this general impaired movement, being either slow and complaining, or jerky and defiant. The drawling stammer of the general paretic is almost pathognomonic of his malady.

ETIOLOGY.

As causation may often render an obscure case clear, it is necessary to examine the tendencies of the patient and the influences surrounding him.

Hereditary predisposition is valuable in diagnosis as establishing the fact that the patient is liable to insanity. The greater the hereditary tendency, the more likely is insanity to be developed.

Among the exciting causes come, first, the use of alcoholics, both to excess and moderately; about thirty per cent. of all cases being due chiefly to this cause. These cases are often troublesome to both physician and court, as they do not know whether the insanity is permanent or not, and are thus left in doubt about the wisdom of committing them to the asylum.

The return of reason depends upon hereditary tendency, age, general ill-health and number of previous attacks, all these militating against recovery. Overwork, under feeding and imperfectly prepared and masticated food are common causes.

Abnormalities of the functions of digestion serve as factors in many cases, but it must be remembered that, not infrequently, the abnormalities of digestion and the mental aberration are due to a common cause. Excessive venery and masturbation, and especially the mental dread of the evil results of this latter practice are elements in the cause of many cases.

The fevers, malarial intoxication, syphilis, rheumatism, puerperal trouble, prolonged lactation, in fact whatever tends to corrupt or impair the great nutritive fluid of the body—the blood—are among the causes of insanity. Blows and injuries to the head are frequent causes. Sorrows and worries of all kinds, thoughts

that come from a secluded and lonely life are frequent causes. Crime is sometimes a cause.

Mrs. —— was received into the asylum with hallucinations of hearing and sight and great depression of mental irritability. After she had partially recovered her mental health, she stated she had committed a great sin. When asked to reveal her crime, she confessed that she had committed adultery, and this had constantly preyed upon her mind.

Thinking that, perhaps, this was a delusion, her husband, a most excellent man, was questioned concerning the matter, and he confirmed her statement, and said that her long-continued remorse for her sin preceded the development of her insanity.

In regard to the best manner of examining a suspected case of insanity, there is no mode best suited to all cases.

In a general way, it may be said that the physician should appear to the patient in his true character, and the patient should know that his mental condition is being examined, not because his insanity is thus more easily discovered, but because his return to mental health will be more favorably affected by an honest treatment of his case than by deception. If he is imsane, he will only too soon become suspicious and distrustful, refusing the advice and care of sane minds which he so much needs. If sane, it is not likely to render him insane to know that his sanity is called in question, but may have the effect of causing him to correct indiscreet mental habits.

This examination should be conducted with that delicate regard for his feelings which instinct will suggest as our rule of conduct in such cases, avoiding deception, as a mistaken kindness, on the one hand, and a brutal frankness on the other.

When considering the testimony of lay observers as to the patient's mental condition, especially in criminal cases, the physician should insist upon a recital of the specific words and acts of the patient, and not trust to any general statement concerning his conduct.

NON-INTERFERENCE IN THE TREATMENT OF GUN-SHOT WOUNDS.

BY J. A. FULTON, M. D., OF ASTORIA.

Since the time the human race began destroying itself by the use of fire-arms, the subject of gun-shot wounds has received special attention from the pens of those surgical writers who have had opportunities for the study of this class of injuries, and has demanded the attention of all who have been called upon to treat such wounds. Consequently, there is to-day a vast amount of literature upon the subject of military surgery; and this subject is of so great importance, that special time and study are devoted to this branch of surgery whenever the opportunity affords.

Wars have, heretofore, afforded such excellent privileges for study and observation, that they have, as a usual thing, been followed by changes and improvements in the treatment and care of gun-shot wounds. These changes have naturally enough been slow in coming, and it has taken many years to arrive at our present system of practice. The later methods of observation and that of keeping records of cases must, we think, facilitate study and hasten us toward that happy time when our treatment of this class of injuries will have reached perfection, if such a time ever comes.

Years ago the student was compelled to obtain his knowledge in great part from observation; to-day, see the immense volumes ("The Medical-Surgical History of Our Late War") that are given to the surgeon for reference. The Franco-Prussian war furnished us much more important material, which was made all the more valuable by the fact of special committees, composed of those high in the profession, having been sent from many countries for the purpose of studying in the hospitals and on the battle-fields of this war, and comparing the different methods of treatment practised.

In this paper we do not purpose alluding to military surgery,

excepting to show what it has taught us; neither do we intend speaking of special gun-shot wounds. Our object in reading this paper is to show, in as few words as possible, wherein the present treatment of gun-shot wounds followed by most of the profession is wrong and pernicious, and responsible for many a deformity and not a few deaths.

We will give you our reasons for believing as we do, and point you toward a plan of treatment which is freed from many of the objectionable features of the system in general practice. In order to do this, we must first look at the ordinary practice; but, before doing this, we will mention some of the changes which have taken place in the treatment of bullet wounds since this class of injuries has been under the observation of the surgeon.

A gun-shot wound was first looked upon as a poisoned wound, which demanded active treatment, *i. e.*, the hot-iron or boiling oil. This barbarous practice was shown to be not only wrong and unnecessary, but actually injurious, by an accident. That great surgeon, Ambrose Pare, having run out of hot oil in the midst of battle, considered that the few wounded men upon whom he had failed to use the oil would certainly, if not actually die, suffer seriously from the lack of proper treatment. He was happily disappointed on finding that these neglected men did much better, and recovered more rapidly, than those who had received the orthodox treatment.

After this, the track of the ball was stuffed with charpie. This practice was soon found to be injurious, for reasons now easily seen. Following this treatment came another with certain advantages, which was drainage, by enlarging the original wound by incisions; but this practice was soon found to be unnecessary, only adding an incised wound to a contused one. Then, surgeons advised and practised excision, or cutting out all the contused tissues, and endeavoring to unite the wound by first intention. But, owing to the peculiar formation of the human body, and the fact that a man was liable to be shot in any part of his anatomy, this practice was soon abandoned.

Our late war left us a better method of treatment than any preceding, which was (as was also practised in all previous plans of treatment) to remove the bullet; then, and here was the improve-

ment, do nothing more than to apply some light antiseptic dressing to the wound. This is the practice of most surgeons to-day.

You will see from the above that the practice has been simplified to no small extent, if we compare the last plan with the first. The Franco-Prussian war taught us to simplify the treatment still more, but, for some reason, the average surgeon has not accepted this teaching. What was this teaching? Simply non-interference.

Perhaps, a reason for its non-acceptance is in the fact that, to follow it, is to deprive the surgeon of an opportunity of displaying his skill with his instruments. One reason may be the fear of criticism from patient or brother practitioner, and another, probably, is the proverbial reluctance of the average man to make a change, or adopt a practice with which he is not familiar.

Of course, none of these should be allowed to stand in our way. We have no right to use our fellow-man for a stage upon which to exhibit our skill. We must expect criticism from those who criticise, and it is our duty as physicians to become familiar with, and practise, that system of treatment which is shown to be best for our patients.

And now for a brief outline of the treatment of gun-shot wounds practised by the majority of our profession. A patient comes to you with a bullet in his flesh, and the blood is oozing from the freshly-made wound. What is done, first, is to run the probe into the track of the ball, as far as it will go. After probing for a while, and failing to detect the bullet, probably the finger is introduced. If the opening is not large enough to admit the finger, you have permission from good authority to enlarge it with a knife. There is no limit to the time allowed for this gouging and probing, but it is generally kept up until the bullet is found, that is, if the surgeon can find it. Then the ball is removed, either through the opening already made, or you may cut directly down upon and extract it that way. After the missile is removed, the wound is dressed according to our ideas of antiseptics, carbolic acid, bichloride of mercury, or whatever antiseptic the operator is accustomed to using.

We will find no fault with the dressing; but we believe the rest of the outlined practice to be wrong in principle, dangerous to the patient, in direct antagonism to the present ideas of opera-

tive surgery, and absolutely needless meddlesome surgery in almost all cases of simple, and most cases of complicated, gun-shot wounds.

Our reasons for believing this are: that we believe a bullet-wound to be an aseptic wound, made under the strictest rules of antiseptic surgery. It is a wound made with a heated body in rapid motion. It is a wound much resembling that made with the acupuncture needle of the electro-cautery. It is a wound as nearly a subcutaneous wound as it is possible to be, and not be one entirely. The tissues closing down immediately after the entrance of the ball, prevents the air from entering the wound. The vessels torn (unless they be large ones, and of this accident we will say nothing) soon stop bleeding of their own accord, and what blood is in the wound coagulates, and thus hermetically seals the opening from the air or germs of disease.

Could a wound, then, be in a better condition for healing than a simple gun-shot wound? Could the modern surgeon make a wound of the same depth and leave it in as good condition as the bullet has left it?

So far as the bullet is concerned, we all know that, as a usual thing, it does little, if any, harm if left alone. We have all seen persons carrying bullets in their anatomy, and who have carried them thus for years, and yet made no complaint, the bullets doing no injury; and is it not the usual thing, after the surgeon has failed to find the ball, and given up the search, for the patient to recover about as soon as he would have done had the bullet been removed? We know that a bullet lodged in the flesh has a capsule or callus form around it, and thus protect the surrounding tissues. Then, with this knowledge to guide us, why is it that we still will probe so zealously for the ball? Why not wait until we find that to allow it to remain in the tissues will be injurious, and then remove it?

We are opposed to all this probing, and for the following reasons: The probe will break up blood-clots and admit air into the wound, which, by the valve-like action of the clot or tissues, is liable to be confined there, and since air confined in a wound is the worst possible thing which could happen, and which is almost always followed by symptoms of septicæmia, the prob-

ing is dangerous. The probe may start anew the hemorrhage, and even open some new vessel. With the most careful manipulation of the probe, the laceration of the already lacerated tissues will be increased. The probe may carry the germs of disease; and, after all, the bullet may be out of reach, and after a great deal of probing, you may fail to find it, and be compelled to abandon the search.

In regard to probing a wound of the abdomen, it seems to us that it would be safer to perform a laparotomy at once, if our curiosity will not allow us to wait for signs of perforation. If you intend to perform a laparotomy at once, there might be some excuse for probing in a wound of this kind ; otherwise, it is inexcusable. Yet we have seen the probe run into a wound of this kind, more out of curiosity, we thought, than with any idea of benefiting the patient, and we were never just certain what killed the patient.

When you have probed and found the ball, only a small portion of the work is accomplished. The offender is yet to be removed, and removing a bullet is not always an easy matter. It is so battered that it clings to the muscles, tendons and fasciæ so firmly as to require the most delicate manipulations in extracting it, to prevent doing very serious damage to the surrounding tissues. Therefore, to remove it with as little damage as possible, the operator must have time, patience, nerve, and a thorough knowledge of the anatomy of the part in which the bullet lies.

We have known surgeons, some of them skilful men too, to work hours trying to remove a bullet that was doing no harm whatever to the patient. We have known surgeons to attempt to remove a bullet from the palm of the hand, and after working for some time to find this "foreign body," finally be compelled to abandon the operation, knowing that should the ball do its worst possible damage, that it would scarcely do the harm and injury which would be liable to follow the operation of removal.

Then you ask, What are we to do in cases of this kind ? Are we to sit idly by and do nothing ? It seems to us that to do nothing is far better than to do harm by doing some-

thing, and we are satisfied that a careful study of the plan of non-interference in the treatment of gun-shot wounds, will convince any one of its advantages.

Our treatment, then, is to let the wound alone ; only apply such light antiseptic as can be readily removed.

We never probe a bullet wound, for the reasons given. We never remove a bullet, unless at the earnest solicitations of the patient or his friends, or unless we find the bullet is liable or threatening to do damage to the surrounding tissues. We find that it is just as easy to remove a bullet six weeks after the injury as it is six hours after, and we find that the patient does better under this plan of treatment.

If there is wadding, or pieces of clothing in the wound, it is near the surface, and most of it can be removed at once ; if not at once, then in a very short time afterwards, for it will soon make its presence known. We do not think it advisable to probe for such articles, for the probe will not detect such material, and even the finger will not always recognize the difference between wadding in a wound and contused tissues.

Pertaining to extraordinary wounds caused by firearms, such as badly torn and lacerated wounds, we will say but a few words, each case of this kind demanding special treatment; yet, even in this kind of a wound, we would not use the probe, believing the shot or bullet will do less harm than the probing. We would urge the removal, though, in such a wound, of all matter liable to decomposition, and then apply a light dressing.

This is our plan of treating gun-shot wounds, and our reasons for adopting it. We have met with such satisfactory results, that we feel like urging a trial of it by all surgeons who have much to do with this branch of surgery.

In following this line of practice, we have been criticised, of course, by certain members of our profession ; but as any practice, outside of the old rut, is sure to meet with criticism, we heed it not, and are slowly convincing our patients, and weaning them from the ideas taught them by our fathers ; and we do not now have the trouble we first met with in practising the system of non-interference.

We append a few cases illustrative of our practice and its

results. The cases we give occurred in the practice of Dr. W. D. Baker and ourself.

CASE 1. M. A. S., policeman, shot through right lung; ball, 44 calibre, lodged beneath skin over scapula. Recovered without bad symptom.

CASE 2. G. M., fisherman, shot through left lung and in left leg; balls, 44 calibre, both lodged in body. Recovered rapidly.

CASE 3. M. F., sailor, shot in neck—about subscapular triangle; ball lodged in body somewhere. Recovered without bad symptom.

CASE 4. A. J., fisherman; bullet, from 44 calibre revolver, entered about post inf. spinous proc. ileum, passed through rectum, bladder, and came out over the pubes; urine passed through external opening and per rectum; temperature 101° second day, after this declined to normal, and recovery was uninterrupted.

CASE 5. H. A., carpenter, shot in calf of right leg; ball lodged in body. Recovery uninterrupted.

CASE 6. C. P., fisherman, shot in left shoulder; ball lodged underneath the scapula of same side, probably. Recovery uninterrupted.

CASE 7. Geo. T., shot in left fore-arm; bullet left in arm. Recovery rapid.

CASE 8. J. P., shot in palm of left hand. Promised to remove ball if it caused trouble. Recovery complete, bullet doing no damage.

We could add several more cases to this list which we have notes of, but it is unnecessary.

The cases reported were all treated as nearly as possible upon the plan of non-interference. The wound was never probed. Opium was given when necessary to keep patient quiet, and, excepting in case 10, the temperature never was over 100°.

Certainly no better results could have been obtained by any other treatment than that followed, and we cannot but think that any other treatment would have resulted differently.

Then, from the above, we draw the following general rules, to which there will be exceptions once in a while, but the judg-

ment of the surgeon will recognize such cases, and we will not mention them :

Do not probe a gun-shot wound.

Do not attempt to remove the bullet, unless you know just exactly where it is located ; and then do not extract it, unless it is bound to do harm, or is threatening injury.

If possible, never remove a bullet which will require much trouble to extract it, until the first wound is perfectly healed.

Lastly ; apply some light antiseptic dressing, which can be removed without disturbing the patient.

If these rules are observed and followed, not simply as rules but as principles which we understand, we feel sure the results will justify the practice.

SPRAINS.

BY G. C. LANE, M.D., OF PORTLAND.

A sprain is a wrench of a joint of such force as to overstrain, and often tear the fibres of the capsular ligament, without dislocating the bones.

The ankle and the wrist are the most frequent subjects of this injury, but the elbow and knee are not uncommonly affected ; while the shoulder and hip, owing to the wide freedom of their motions, are seldom sprained.

The various joints of the spine also occasionally suffer in this way, and the lamentable results which sometimes attend these injuries, and the mischief of which they may lay the foundation, lend to them a peculiar interest, so much so that I shall speak further on the subject later on.

Although the laceration and overstraining of the capsular ligament constitutes the essential element of a sprain, other tissues not infrequently suffer.

Thus, the tendons may be ruptured, and muscles torn. Still more frequently the synovial membrane is torn or contused,

giving rise to severe synovitis, and small vessels are generally ruptured, causing extravasation of blood either within or without the joint, or both. In joints whose capsular ligament is very powerful, the same force which produces the sprain occasionally drags off the articular end of the bone, giving rise to the so-called "sprain fracture." This complication is most frequently met with in the wrist.

DIAGNOSIS.

The swelling and tenderness, which always attend a sprain, often render it extremely difficult to arrive at a correct diagnosis; and in nervous, sensitive persons it is sometimes impossible to examine the joint with sufficient minuteness to definitely determine the exact nature of the injury.

In such cases the surgeon is sometimes warranted in giving an anæsthetic, in order to avoid an error of diagnosis, with its attendant evil consequences.

In an uncomplicated, recent sprain, however, the bony landmarks will be found in correct relative positions, which will exclude the suspicion both of dislocation and of impacted fracture, while the distinction of non-impacted fracture rests upon crepitus and abnormal mobility. Incomplete fracture often exists unsuspected, until revealed by the formation of a provisional callus.

SYMPTOMS AND HISTORY.

Immediately upon the occurrence of a sprain there is severe pain, often accompanied by something like faintness and nausea. Swelling commences at once, from the effusion of blood into the tissues, and continues afterwards from the advent of inflammation of the parts affected. When the synovial membrane is implicated, there is synovitis, with correspondingly rapid filling up of the sac of the articulation with synovial fluid, often mixed with blood.

If it is one of the joints of the spine that is affected, the effusion of blood may be so great as to completely fill the spinal canal, and the resultant clot may, by its pressure, cause paralysis of the parts supplied with nerves derived from the spinal cord below the seat of injury.

Hæmaturia occasionally attends sprains of the spine in the lumbar region, but it generally lasts but a few days, and is not usually a symptom of serious import. In very severe cases the patient is totally disabled, but in a majority of cases he is able to use the joint moderately during convalescence. Acute suppuration rarely follows, but the chronic synovitis, which sometimes results when not properly managed, occasionally lays the foundation for caries and suppuration at a later date. When synovitis does not supervene, suppuration and caries can hardly occur. If the patient is of a strongly rheumatic diathesis, the local irritability is often extremely obstinate.

PROGNOSIS.

In a vast majority of cases, the prognosis for a complete cure is, of course, favorable; but the fact that trouble will occasionally follow, no matter how well the case is treated, should warn us not to promise too much in every case. The inflammatory symptoms usually subside in a few days, but there is a mechanical difficulty which often remains much longer, and is even aggravated by the immobility enforced as a curative measure. The most plausible explanation which I have seen of this trouble is as follows, viz.: The various bands of ligaments around a joint have normally certain free, gliding movements upon each other, and transmit nerves and blood-vessels in the interspaces. These nerves are torn by the same force which produces the sprain, and the sensitive fibres become imbedded in the cicatricial tissue formed in the healing process, so that the movements of the joint are hampered and painful, and can only be relieved by forcibly breaking up the abnormal adhesions.

In cases of sprains of the spine, followed by paralysis of the arms or legs, the patient generally improves somewhat, then comes to a standstill, and remains partially paralyzed ever afterwards.

The explanation of this partial recovery lies in the fact that the fluid part of the clot of blood, which causes the paralysis, is gradually absorbed, while the solid constituents remain, and hence recovery is not complete.

TREATMENT.

The most contradictory precepts have been given for the management of sprains. Very few writers agree when we consult them for an answer to the question, What line of treatment gives the best results in the greatest number of cases? All agree, however, that rest is the most important indication during the continuance of the acute inflammatory symptoms. If it is a limb that is affected, it should be kept in an elevated position. Most surgeons advise the use of cold applications in this stage, but it is my belief that they do no good, if they are not positively harmful. The cold cannot penetrate to the deeper tissues, and the contraction caused by the cold is followed by an undesirable reactive dilation. Hot applications are much more agreeable to the patient and, in my opinion, more efficacious. Whichever plan is adopted, however, should be steadily maintained, and no changes from one to the other should be made.

A recent writer in the *Lancet* has recommended wrapping the joint in damp clay, and then applying a rubber bandage. I have never tried this plan, but am inclined to the belief that its chief efficacy consists in the immobility which the bandage insures.

In very severe cases, especially in those where the articular end of the bone has been dragged off, some form of immovable appliance had best be resorted to; either starch bandages or plaster of Paris may be used.

The danger of anchylosis following this practice must be kept in mind, however, and passive movement of the joint be begun as soon as possible.

I usually use a liniment of some kind during the acute stage, but it is rather out of respect for a tradition than from any expectation of benefit from it.

When the acute inflammatory symptoms have subsided, the chief indication is to get rid of the fluid effusion which has been poured out by the torn fibres, and is irritating like similar effusions after other mechanical injuries. Unfortunately, the drainage tube cannot be used here, but by gentle but firm massage in a direction away from the joint, followed by the

application of a Martin's elastic bandage, we can generally accomplish our object.

I have recently had an opportunity of testing this method in two cases which had resisted all other methods, and the success met with has lead me to think highly of it, and to report somewhat in detail the manner of its application.

As soon as the condition of the joint will admit of gentle pressure being exercised on it, the massage should be begun. The joint should be grasped firmly by the fingers and gently rubbed in an upward direction, the object being, as before stated, to press the effusion out of the joint into the less irritated surrounding connective tissue, where it will be quickly absorbed.

One who has not tried this plan will be surprised to find how quickly the most sensitive joint will bear the strongest pressure that can be conveniently made with the fingers. After continuing the rubbing for five or ten minutes, an elastic bandage, of a suitable width, should be applied as firmly as can be borne, from a point below the joint to some distance above it. Cotton should be placed in the depressions, to avoid injurious pressure on the protuberances.

The bandage serves the double purpose of supporting the joint and favoring the absorption of the effusion by its pressure.

Patients generally experience relief from the pain, and the sense of weakness which has troubled them before.

In twenty-four hours, or sooner if there is much discomfort complained of, the bandage should be removed, the massage repeated, and the bandage reapplied.

This plan is especially useful in patients who are unable to allow the joint the rest which it calls for.

The liability of the lacerated layers of ligamentous fibres to form abnormal adhesions to each other, and its adjacent nerve-twigs, should be borne in mind, and the stroking massage should be followed in a few days first with passive, and then with active, movements of the joint in all the directions of its normal movements. If the synovial membrane is inflamed, the movements must be greatly limited. The diagnosis can generally be made by pressing the joint surfaces together in

such a way as to avoid stretching any of the tender ligaments. If acute synovitis exists, the rubbing together of the inflamed surfaces will elicit pain, and as all friction and pressure of inflamed synovial surfaces is injurious, it will be necessary to limit the movements, and comply with the demand of the synovial membranes for rest.

Fortunately, however, it will generally be found that a free movement once a day will be sufficient to free the ligaments from adhesions, without seriously retarding the recovery from the synovitis.

In cases of sprains of the spine, however slight, it is well to bear in mind the fact that caries of the bones occasionally follows, and to insist on perfect rest in bed (the only treatment we can successfully apply) as long as there is the slightest tenderness on pressure. This is especially important in delicate children, with a suspicion of the strumous diathesis about them.

When a case becomes decidedly chronic in spite of gentle movements, and in which there is neither a rheumatic diathesis nor synovitis present, it will sometimes be justifiable to resort to strong, forcible wrenching to free the abnormal adhesions which perpetuate the trouble.

Finally, if all other means fail, it is advised to practise neurotomy on certain nerve twigs, in order to paralyze the sensation of the adherent spots, and thus rid the patient of his pain. I have seen very meagre reports of the results of this operation, however, and having never practised it, nor seen it practised, cannot speak advisedly of its merits.

Should chronic synovitis supervene, and result in caries and suppuration, as will occasionally happen in spite of the most intelligent treatment, the new trouble should then be treated on the general principles of surgery for this condition, the discussion of which does not come within the scope of this article.

LEUCORRHŒA.

BY CURTIS C. STRONG, M.D., PHYSICIAN IN CHARGE OF THE FEMALE DEPARTMENT, GOOD SAMARITAN HOSPITAL, PORTLAND, OREGON.

Mr. President and Members of the Oregon State Medical Society:

Ladies and Gentlemen: In looking up the literature on the subject you have honored me with, I have had some difficulty in obtaining some of the facts established by writers upon this subject.

My own library is rich in works upon uterine diseases, yet were we within reach of those immense repositories of medical knowledge to be found in medical libraries in the east, we would be able to present something more worthy to occupy your valuable time.

The subject assigned to me is "Leucorrhœa." As a disease leucorrhœa belongs to a passed nosology. Modern research having demonstrated that the discharge to which this term has been applied is not a disease *per se*, but is only a symptom of other pathological conditions.

The term leucorrhœa has been, and is now by courtesy, applied to any discharge into or from the vagina, provided the discharge be not distinctively bloody.

As thus used, leucorrhœa was familiar from the time of Hypocrates, and from that time to this the disease has been common to every clime and to every situation in life.

The following are some of the conditions which seem to superinduce the disease, viz.: constitution and temperament; for example, persons of fair complexion are thought to be more liable to the diseases producing leucorrhœa. Moist, cold climates, indolent sedentary habits, indulgences, late hours, over stimulation, the too free and too prolonged use of the warm bath, and excessive venery are all given as factors.

It is common to all periods of life, but is more common after

the menstrual period, and still more common after married life.

Cullen believed that the discharge came from the internal surface of the uterus, and from the same vessels from which the menstrual blood was derived; in fact, that leucorrhœa was due to a weakening of those vessels.

Chambon, Denman, Leake, Vigarous, Gardien, Capuron, and Burns were all his disciples.

Dewees believed that the discharge was derived altogether from the vagina, and was due to local causes.

He thought that there might be cases in which the discharge came from the uterine cavity.

Clarke however, held that the discharge generally originated from, either the uterine or cervical cavities, or from both combined. He is the first to give a perfect description of the discharge.

As early as Chambon's day, the color of the discharge was thought to indicate its source. About all this there was a great deal of theory—all speculation, no speculum,—for as late as Dewees' time speculums were unknown, or at least had never been successfully applied to the study of uterine diseases.

It is manifest therefore, that it was impossible for our predecessors to have arrived at all the true causes of this disease. We now know that the discharge comes from the uterus, vagina, or from both. It is unnecessary for me to go into the general anatomy of the uterus or its appendages, as they are familiar to you all. I desire to recall to your recollection a few important points. The body of the uterus, and the cervix as far as the external os, are lined with mucous membrane. That portion in the cervix being arranged in folds, and between these folds are glands and follicles in great abundance. This mucous membrane is divided into two varieties. The elevated portion being of the ciliated, and that portion between the elevated ridges is of the columnar variety. The glands in these membranes are of the racemose variety, made up of elongated, repeating, branched ducts. They extend deeply into the connective tissue, and have dilated extremities.

There are believed to be no purely mucous glands in the uterus.

The openings of these glands are mostly on the ridges, next in the furrows of the mucous membrane.

Your careful attention is called to the arterial supply, derived from three pairs of arteries—the ovarian, uterine and vaginal.

The ovarian artery arises from the abdominal aorta, passing upwards between the layers of the broad ligament. Near the fundus of the uterus, it divides into the ascending and descending branches. The ascending branch pass to the fundus, the descending is distributed to the side of the uterus above the neck, anastomosing with the uterine.

Numerous small branches pass from the ovarian to supply the ovaries.

The uterine artery starts from the anterior division of the internal iliac, passing downwards between the layers of the broad ligament. This artery supplies the cervix and the body of the uterus, anastomosing with the ovarian and its fellow of the opposite side. From the uterine a special branch passes to the uterus where the cervix joins the body, and with its fellow of the opposite side makes the circular artery of the cervix. This artery is liable to be cut in the operation for lacerated cervix.

The vaginal artery usually arises from anterior division of the internal iliac; sometimes however, from the uterine or from the middle hæmorrhoidal. The vaginal passes between the layers of the broad ligament, and is distributed to the vagina.

The arteries freely anastomose with one another and with their fellows of the opposite side. Like all vessels supplied to organs of ever changing size and shape, they are very tortuous in their course, making a perfect net-work of arterial supply. The veinous system is very abundant; there usually being more veins than arteries, you can readily see how many there must be.

The veins are arranged in various plexuses, freely communi-

cating with one another. An important fact to be remembered is, that the veins are without valves.

If you will consider for a minute the arterial supply and veinous arrangements, taking into account the various changes in size, position and conditions of the uterus and its appendages, you will readily see the important part taken by this system in producing those pathological conditions so often observed in the sexual organs of the female.

It will also help you to arrive at a correct diagnosis, prognosis, and aid in the treatment of many uterine diseases.

We will consider that portion of the nervous system most intimately concerned as a cause of abnormal action. The sympathetic or ganglonic regulates organic life. It therefore controls and regulates the circulation, and as nutrition is governed and influenced by the circulation, we have by direct deduction from these premises, that the sympathetic governs and influences nutrition.

Emmet believes that about all diseases of the uterine system come from faulty nutrition, as a healthy condition of the blood is necessary to furnish to the sympathetic system its stimulus: "Therefore, if nutrition is impaired, the blood will be deficient in the elements essential to supply this stimulus; and as a consequence, the circulation will become sluggish, and the venous capillaries distended."—(Emmet.)

The converse of this is also true: when, from some unknown cause, this mutual relation is destroyed, some local disease will result; and the law which governs where the disease will locate itself, will be that diseases usually show themselves in the weakest part. At the present time, this weak point in women is usually in the sexual organs. You might therefore make for convenience two classes of causes, viz.: faulty nutrition and accidental. Leucorrhœa may belong to one or the other of these causes.

There will be no objection to our considering leucorrhœa under two heads. We shall therefore consider, first constitutional, second local causes.

CONSTITUTIONAL.

The following may be mentioned as the most common causes of constitutional leucorrhœa :

1. Chlorosis. 2. Phthisis. 3. Vaginitis.
4. Carcinoma. 5. Sarcoma.

1. Chlorosis.

In chlorosis we have an impoverished condition of the blood, due to some peculiar change in that fluid ; changes that we do not fully understand in all their relations of cause and effect. The blood when so altered, loses its normal power of stimulating the sympathetic system ; this lack of stimulation reacts upon nutrition, and leads to local congestion. This chlorotic condition of the blood lacks the power of stimulating the heart, thus readily leading to local congestion, by retarding the return current of blood to the right heart. Any disease of the heart, lungs or blood-vessels which in any way so acts as to retard the return current, will result in the same conditions.

Congestions may be caused by some local obstruction near the uterus. For example, compression of the hypogastric veins by tumors, or even by an accumulation of hardened fæces in the rectum.

Any imprudence near or at the menstrual period, by checking or increasing the normal congestion of the parts, may result in hyper or stagnant congestion, and thus give rise to leucorrhœa.

2. Phthisis.

The relation of phthisis, scrofula and the acute diseases of typhus, cholera, variola, and other infectious diseases to leucorrhœa we do not fully understand.

The best explanation is that leucorrhœa, in these cases is due to faulty nutrition.

3. Vaginitis.

Simple and senile vaginitis may cause a leucorrhœa, due to congestion and hyper-secretions of the parts from inflammatory action. By a natural disposition in the medical profession to ostracize venereal diseases, we may very justly exclude from this list gonorrhœal vaginitis.

Vaginitis produces a free, muco-murritent leucorrhœa. It is well to remember that as vaginitis can cause leucorrhœa, so can leucorrhœa cause vaginitis.

4. Carcinoma and 5. Sarcoma.

Carcinoma and sarcoma, after they have progressed for some time, cause more or less of a discharge. This discharge may be with or without odor; so it may be called leucorrhœa by the patient herself, or even by a physician. They are therefore given among the causes.

You see from this that it is necessary for you to examine all patients coming to you complaining of leucorrhœa, if you do not wish to have some more careful physician discover the true cause.

LOCAL.

Under the second or accidental causes of leucorrhœa, we have to consider a number of agents. The following are among the most frequent sources of leucorrhœa:

1. Anteflexion. 2. Retroflexion. 3. Cervical catarrh. 4. Chronic metritis. 5. Endometritis. 6. Lacerated cervix. 7. Uterine polypi. 8. Vaginal cysts.

No attempt has been made to mention them in the order of their importance, so great is the difference of opinion on this point.

1. Anteflexion.

The bending of the uterus in anteflexion causes an obstruction in the uterine circulation resulting in the uterine tissues becoming filled with blood. Nature, ever alert to bring back the system to its natural condition, causes a contraction of the uterus, with a view of emptying the overloaded blood vessels. This cannot overcome mechanical obstruction, and therefore only increases the difficulty.

The congestion continuing, the mucous membrane is now affected, giving rise to an hyper-secretion called leucorrhœa.

2. Retroflexion.

Retroflexion produces a chronic inflammation of the uterine mucous membrane, caused in the following manner: The dis-

placement causes a mechanical obstruction to the circulation, followed by passive congestion, and this in turn setting up a hyper-secretion of the mucous membrane. At first these discharges are only noticed just before and right after the menstrual period, soon however spreading over the intermediate time.

3. Cervical Catarrh.

After laceration of the os, there follows inflammation, then chronic congestion of the mucous membrane. The lips are everted and covered with granular patches, extending upwards to the os internum, or even into the uterus; and outwards so that the entire external portion of the cervix is covered.

This is the condition so often called ulceration. This raw appearance is due to a newly formed granular secreting surface.

The accompanying leucorrhœa is either due to this condition or is increased thereby; and by continuity of tissue, we have chronic inflammatory changes in the other tissues of the cervix. These changes may involve two or more of the component parts of the cervix. Thus the glands, epithelium, or connective tissue may be involved.

The following are some of more important causes of cervical catarrh:

The most frequent is parturition. How this injury produces this state of affairs is still a disputed point.

Another cause is laceration. The latter so often depends upon the former that for all practical purposes, they may be considered one and the same cause.

Emmet, in fact refers all these troubles to lacerations. The extension upwards of vaginitis, or downwards of endometritis, and retroflexion may all act as causes of cervical catarrh.

In cervical catarrh from any of these causes, we often find the urine loaded with lithates, due to impaired digestion, the result of this uterine trouble.

The diagnosis between cervical catarrh and endometritis, is often obscure and difficult to make.

4. Chronic Metritis.

This is one of the most important diseases of the uterus. There are recognized two main classes of causes; first, causes

which operate through interference with the normal involution of the puerperal uterus; second, causes which lead to repeated or protracted congestion of the uterus. The first class subinvolution, may be caused by the retention of a portion of the placenta or membrane which acts in a way familiar to you all. The irritation set up by extensive laceration of the cervix, prevents involution by its action on the circulation. Cellulitis or peritonitis, acting either in the same way, or by interfering with the circulation, may, and often does, give rise to chronic metritis.

It is some time after parturition before the uterus returns to its normal size and weight; and until it does it is heavier and the ligaments relaxed so that if the woman gets up during this state of the parts, there is a sagging, leading to passive congestion and to the formation of connective tissue.

A cause of subinvolution, not thought of as its importance demands, is non-lactation. Lactation is a direct stimulus to uterine contraction. Where this stimulus is absent for any reason, the uterus is often passively congested. It is for this reason, and because patients do not consider it necessary to take the usual care of themselves, that abortions and miscarriages so seriously affect the health of women.

The second class of causes which lead to chronic metritis are all those which lead to repeated or protracted congestions of the uterus; such as displacements and pressure, whether made by the distended bladder or rectum, or by tumors in or near the uterus. And lastly, causes which produce an increased flow of blood to the parts, as endometritis, the too free use of caustics, and excessive or perverted sexual intercourse.

5. Endometritis.

Endometritis is usually associated with metritis and perimetritis. In chronic endometritis the mucous membrane is hypertrophied, and the glands usually in the same condition.

The vessels are dilated and enlarged, and indifferentiated embryonic tissue is produced. In the first of these conditions, where the membrane and glands are hypertrophied, we have leucorrhœa, and in the last variety, where the tissues are altered, we have a muco-purulent discharge.

Endometritis is usually independent of acute attacks, and is sometimes due to constitutional causes. The most important as well as most frequent causes of this disease are parturition and displacement, and leucorrhœa the most characteristic symptom.

If only uterine catarrh should be present, the discharge will be watery, not dense or gelatinous. If examined before it reaches the vagina, it will have an alkaline reaction. In some cases of endometritis the discharge is purulent. These discharges are not necessarily due to inflammation, but are often due to an hypersecretion.

6. Lacerated Cervix.

Lacerated cervix is probably one of the most common of all causes of leucorrhœa. The *modus operandi* is very fully explained by Emmet, and is due to the obstruction it offers to the circulation, causing faulty nutrition.

7. Uterine Polypi.

In uterine polypi the leucorrhœa is due to the subacute endometritis set up by these bodies. Chronic catarrh of the cervix often causes cysts, and these are known as polypoidal retention cysts.

Whenever the polypus is forced down so as to lie in the vagina, we have vaginal leucorrhœa, due to local irritation.

8. Vaginal Cysts.

Vaginal cysts, when of sufficient size give rise to leucorrhœa by the local irritation which they set up.

Pruritus is given as a cause of leucorrhœa; it may however be a result not a cause. Often it is the only thing the patient complains of. It is necessary that you examine carefully into all these cases, as you can only relieve the trouble by discovering the true cause.

TREATMENT.

Many persons are disappointed when looking over the treatment given for any disease, in not finding a perfectly plain, specifically marked out plan fitting the particular case they have in hand, and which has perplexed them.

So various are the pathological conditions which may exist under the same name, and so multitudinous are the causes which are operating, and so much difference exists in the capacity of observers to find out these differences, that it is impossible to do more than to lay down very broad principles.

There are a number of common principles which should aid us in the general treatment of all forms of uterine disease. Emmet is a firm believer in that all local diseases are due, in part or, in whole to faulty nutrition. In the next edition of his valuable work, I expect he will leave out "in part" principle.

However this may be, there can be no reasonable doubt that the two main conditions to be fulfilled are to improve the nutrition, and to restore tone to the pelvic blood-vessels.

In many perhaps most cases of uterine disease, especially of long standing, many other organs seem to be in an abnormal condition. The causes which have been operating to produce these conditions are usually many, and extending over a considerable period of time. One of the first conditions necessary for success is of course, the removal of these causes; and as nearly absolute rest for the sexual organs as possible.

Without some experience and care, there might be difficulty in fixing upon the right cause of the ills complained of, so varied are their locations.

The patient may complain of the head, stomach, bowels, bladder, liver or kidneys; of neuralgia, variously located; or that somewhat ambiguous and ubiquitous disease known as hysteria.

The kidneys are often overtaxed and the skin inactive. We are apt to fall into the error of calling these indefinable, complained-of symptoms hysteria, or laying them at the door of anæmia. Now, anæmia is one of our inheritances and denotes a condition not a cause.

Now whatever may be the pathological condition, or first cause—and I do hope it is not such a small "coma" as to make it necessary to discover it with a microscope—we must correct and endeavor to remove it. We must direct our attention to all parts of the system. The bowels are usually constipated and even if regular are often sluggish; and there is no use in giving

tonics till the tongue is cleaned off—if you do you will not get any benefit from them.

To reorganize the stomach and bowels, you may in the absence of counter indications give at bed time:

℞ Hydrar. Chlor. Mite - - - grs. v or x.
Ipecac. pulv. - - - - gr. j.
Rhei pulv. - - - - grs. x.
Sodæ bicarb. - - - - grs. xx.

followed in the morning by a saline cathartic; and in a day or two twenty grains of ipecac.; in some cases you will find that after the stomach becomes settled, a repetition of the cathartic will be beneficial.

Then in order to keep the bowels soluble you may give from half to one ounce of the following mixture every morning:

℞ Magnes. sulph. - - - - oz. j.
Ac. sulph. dil. - - - - dr. j.
Ferri sulph. - - - - grs. xv.
Syr. amantii bnt. - - - oz. j.
Aquæ Q. S. ad. - - - - oz. viij.

From a fourth to a half of a grain of ipecac., three times a day, will improve the stomach very much.

It is well to bear in mind that experience has proven that digestion is not materially aided at first by medicine. If we will learn to depend more upon a well regulated diet, we will not be disappointed so often. We should use nutritious food in small bulk, given often, but with great regularity as to time.

The next general step of importance is to get and maintain a healthy, active condition of the skin. A vapor bath given as follows, is very efficient: place two or three blankets upon the floor; on these place a chair if the patient is to sit up—several, if she is to lie down. Place spirit lamps under these chairs, and bring the ends of the blankets on to the chairs. When the air is warm the patient can place herself on the chairs, and bring the ends of the blankets over her, throwing an extra one over her.

At first it will take ten or fifteen minutes to produce an abundant perspiration; the patient is then to be sponged off with warm water, rubbed down, placed in bed and given a cup of warm beef tea. If you have the conveniences, the patient can

wrap a blanket about her and immediately step into a properly heated bath. All this can be done without any exposure to the air.

Another splendid aid, and one not used often enough, is the sun bath.

This consists in exposing the entire nude body at once, or by turn, to the action of strong sun-light; the face and hands can be protected, if insisted upon. This can be followed by a bath, as cool as can be comfortably borne, beef tea and the bed.

Raw beef sandwiches are good. Salt pork fixed as follows, is very nutritious and easily digested: take a thick piece of fat pork, soak it well in running water for twenty-four or thirty-six hours, then put it in a pot filled with cold water and bring to a simmer; repeat this process two or three times, then boil till thoroughly done. When cold, slice thin and make into sandwiches, using state bread, adding fresh salt if necessary. Rich milk the richer the better, is very good and may be rendered less constipating by the addition of salt, and of sodæ if there be a tendency to excessive acidity of the stomach.

Cod liver oil emulsions, cod liver oil and milk with the peptones and the maltine preparations are all good, if properly used, *e.g.*, when the stomach is able to digest them. Tea and coffee are not very good and in fact should be forbidden. Stimulus should not be used unless the patient is able to take exercise freely, and in that case they are not needed.

Another adjunct to ensure a healthy action of the skin is the wearing of flannels. All persons, more especially children and ladies, should wear long-sleeved, high-necked flannel wrappers,—and flannel drawers. In the summer the lighter grades may be worn, but on no account should they be taken off at any time. When I speak of flannels, I refer to the silk and merino goods as found in our stores. There is no medical advantage in red flannel, and I see no reason for making a woman hideous to her family by requiring her to wear them.

Sleep is the natural nerve restorer: it is during sleep that nature makes up the daily wear and tear of the nervous system. From the nervous development of women they require more sleep than men; a woman should have not less than nine hours' sleep.

Supplement all this with plenty of pure air and out-door exercise, and if with this you can secure the fullest confidence of your patient, half the battle will be won.

We are now prepared to consider local treatment. There is but little difference of opinion as to the use of hot-water vaginal injections: there is some as to the method, for example whether it shall consist of a steady stream, or be thrown in by jets; and some difference of opinion as to quantity.

I will give you what I believe to be the best method. You will find it almost impossible to carry it out in many cases but if not carried out, you will fail to get any benefit from its use.

The patient should lie down, the hips slightly elevated, and the external parts protected. I think it makes no difference whether the water is thrown in with a syringe or by a fountain syringe. There should be used from one to five gallons of hot water—that is from blood heat to 110°. In order to maintain this elevated temperature, additional hot water must be added from time to time.

You will see from this that it is impossible for a woman to properly administer to herself an injection of therapeutic value. One taken sitting over a vessel is a snare and a delusion. To the last pint you may add either glycerin in almost any quantity, or chlor. potass., chlor. sodium, carb. sodæ, borax, Castile soap, sulph. copper dr. ij. to the pint, chlor. ammon., permang. potass., carbolic. ac. or sulph. zinc dr. j. to the pint, and many others.

I would refer you to an excellent article on this subject by Prof. Paul F. Mundé, M.D., in his "Minor Surgical Gynecology."

One or twice a day should these injections be given; they are usually taken once a day, and for convenience at bed-time.

The treatment of leucorrhœa due to special constitutional causes, is to be aided by constitutional treatment.

Chlorosis, phthisis, carcinoma, and sarcoma are to be treated upon the most improved modern theories of these diseases; in the two former using stimulating and astringent injections, and in the two latter, astringent and disinfectant washes.

In vaginitis give a cleansing wash; then by the aid of a speculum dry the parts thoroughly and apply to the os, internal and

external, and to the entire vagina a solution of nitrate of silver, forty to sixty grains to the ounce, and to the external parts apply a weaker solution, ten to twenty grains to the ounce.

When the external parts are dry, apply zinci or vaseline ointment, and insert a little absorbent cotton between the external lips.

The same evening wash out the vagina, using ammon. chlor. ammon. dr. j. to the pint of warm water. The next day by the aid of a speculum, place in the vagina so as to separate the walls, a piece of oakum well picked and soaked in glycerin. Many times this cannot be borne; in this case have the vagina washed out. The greatest cleanliness is to be observed as the disease is contagious.

Ante and retroflexions are to be corrected, and the local conditions that may exist are to be treated as will hereafter be shown.

In all cases of chronic cervical catarrh, attention should be paid to exercise, which should be very moderate, especially riding. Sexual indulgences should be curtailed as much as possible.

In these cases the discharge will often be seen protruding from a small external os; you had better enlarge the opening by incision or by dilatation. Often the thorough application to every part of the diseased surface, extending as it may above the internal os, of crude carbolic acid, alternating with Churchill's tinct. of iodine and of the glycerin plug, will cure the disease.

Sometimes stronger applications are necessary. Heywood Smith recommends the application of liq. hydrar. pernit., and Sinety highly endorses chromic acid. I have not used either of these preparations, and therefore cannot speak from experience. Another method of changing this secreting surface is to remove the lining membrane, either with the sharp spoon, by dissection, or by the application of nitric acid. In using the latter be thorough, making six to ten applications at one sitting, so that every part shall be reached, protecting the parts by the application of benzoated cotton moistened in glycerin. These cases are usually slow, but by care and perseverence they can be cured. The danger is that the patient feeling better, will stop all treatment before she is fully recovered.

In chronic metritis the main end to be secured is to diminish the passive congestion. If the uterus is heavy and flabby, the

vagina large and roomy, there will be more or less settling of the uterus. The flabby condition of the vagina must receive some attention, and the uterus supported.

Applications to the vagina and uterus and hot-water injections, the latter continued ten or fifteen minutes each day, will result in much good. At each menstrual epoch the uterus and appendages are congested; this adds to an already existing congestion, thus increasing the difficulty. Everything having a tendency to reduce this periodic congestion, such as rest, etc., must be taken advantage of.

Endometritis often follows labor or abortion, due to the retention of attached portions of placenta or membranes. It may become necessary to scrape out the uterus. If it is due to the effect of retained particles, you may paint the entire surface of the uterus with Churchill's tinct. of iodine, and give internally fluid ext. ergot, m. xx., brom. potass. grs. x., tinct. digital., m. x. ter. die. The patient should be guarded against over exercise or exposure.

Lacerated cervix. To hear some of our so-called, or rather self-styled gynecoligists talk you would think that this is the simplest form of uterine disease, or at least in their hands the easiest remedied. The worst case I ever saw came from one of them with the report that there was no uterine trouble.

Taking Emmet as a guide, your list of remedies is very small, but fortunately sufficiently large to cure all cases. His rule is to operate in all suitable cases, and never to use caustics or amputate the cervix. A cure effected by caustics is worse than no cure at all, and should never be attempted. No operation should be performed while cellulitis is present. It seems to me we should never operate; first, when the laceration however well marked, has produced no unpleasant symptom; second, when chronic peritonitis or cellulitis is present.

I have seen a large number of lacerations; in fact I believe that some degree of laceration takes place in every case of first labor. Comparatively few of them will require an operation, most being amenable to other methods of treatment. I believe however that if patients would consent to an operation, many of them would recover faster and in some cases better. Most of

these cases dread any operation and are unwilling to give the necessary time to their cure. Most cases are curable if properly treated.

Following are some of the remedies useful in these cases: Astringent applications — crude carbol. acid, Churchill's tinct. iodine, glycerin and hot water. As mentioned before I am opposed to caustics; nitrate of silver, properly used, I do not consider a caustic but one of our strongest astringents.

In leaving this subject of lacerations I have but one favor to ask; that is—do not call a laceration ulcerations.

Uterine polypi we should endeavor to remove whenever possible. It is often necessary to dilate the cervix, and we should be prepared to remove them at the same time. The small polypoidal polypus may be removed with the curette, the mucous polypus may be twisted off with the forceps. Fibroid polypi are often too large to be twisted off; they may be removed by amputating the pedicle either with the scissors, ecraseur, or galvano cautery.

These operations seldom necessitate the use of chloroform, and the prognosis is usually favorable.

The last of our causes of leucorrhœa are vaginal cysts. These may be freely laid open and their lining membrane thoroughly destroyed. If these cysts are discovered after the menopause, and are creating no disturbance, it is best to let them alone.

In closing this paper, I feel that the work is but partially done. So much depends upon the attention to what would seem to readers as the small things, that if it were possible to insert them,—the article would be too long to be practicable.

In all specialties there is a tendency to go to extremities, but if judgment and attention were given to this branch, many women could be rendered comfortable and useful to themselves and to the world.

I am afraid that the sufferings of women are but partially appreciated by men.

THE RADICAL CURE OF HERNIA.

BY ARTHUR D. BEVEN, M.D., SURGEON U. S. MARINE HOSPITAL SERVICE AT PORTLAND.

Hernia is the most common of surgical lesions, statistics showing that one out of thirteen men, and one out of fifty women, are the subjects of rupture. This frequency, and the difficulty of effecting a cure, are responsible for the many operations suggested and resorted to to radically cure hernia; many of these are severe, some barbarous, and all, with two or three exceptions, valueless. Further time need not be consumed with some than their mere mention : castration, injection of iodine, cauterization of sac, ligation of sac, invagination of portion of scrotum in canal, detaching sac and returning into abdomen, plugging canal with testicle, etc. These procedures were frequently followed by death and rarely by permanent cure, and have been justly abandoned.

The radical cure of hernia can be accomplished in one of four ways :

First, by the use of the truss;

Second, by the Heatonian method of injecting the canal with irritating solution and setting up adhesive inflammation;

Third, by Wood's method of subcutaneous suture of the columns and invagination of scrotal fascia ; and

Fourth, by Czerny's method of ligating and amputating sac and stitching up external columns with suture.

These methods all possess some real merit and will be briefly and separately discussed.

Of radical cure by use of truss, Erichsen says (Edition 78): "Various methods have been devised in order to effect cure of a reducible hernia. The only plan, that is at the same time perfectly safe and permanently successful, is the compression of a well made truss." Probably twenty per cent. of inguinal, umbilical and femoral herniæ occurring in children and young

adults can be cured in this way, and this method is the one that should first be resorted to. In order to be successful, a few points in the use of the truss, often neglected, must be observed; first, the pad, preferably a hard one, must cover the entire canal; second, the spring must be both strong enough to retain the rupture and weak enough to be comfortable to the patient; third, the rupture should never be allowed to descend; and fourth, the truss should be worn for several years after an apparent cure has been effected.

The second method mentioned, the Heatonian operation, consists of injecting the canal with strong solution of white oak bark, and is performed in the following way: A hypodermic syringe, with a needle so arranged that it can be made probe pointed, is filled with about 15 m. of solution of oak bark; the index finger of the side to be operated upon is carried up the inguinal canal, invaginating the scrotum; the needle of the syringe is entered immediately above the finger, then made probe pointed and pushed up into the inguinal canal; the needle is then slowly withdrawn and the fluid deposited along its track. A firm compress is placed over the parts and retained with spica bandage. The patient is kept flat on his back for three weeks, at the end of which time he is allowed to return to his work wearing a light truss; the truss should be worn for several years.

This operation, if properly performed, is perfectly safe, the worst that can happen being the formation of an abscess in the track of the injection. The operation is a very seductive one; most of the cases operated upon will, at the end of three weeks, be apparently cured, the patients will be able to walk about without a truss, and will feel very sanguine as to the result, but in almost every case, unless a truss is worn, the return of the rupture is only a matter of weeks; at least, this has been my experience with the operation, for out of eight or ten cases operated upon at the U. S. Marine Hospital at Chicago, all, although seemingly cured when allowed to leave their beds, had a return of the trouble within a very short time, with the exception of a boy of fourteen who was operated upon for a recent bubonocele.

Warren, of Boston, who has had much experience with the operation, and Heath, of the U. S. Marine Hospital Service at Buffalo, who reports some seventeen cases cured, both come to the same conclusion, *i.e.*, that the operation is successful only in recent cases, in small hernia and in patients under twenty-one years of age.

I believe that the measure is a valuable adjunct to the radical cure of hernia with the use of a truss, and that this is its only merit.

The third method to be considered is that of John Wood, of King's College, London. This method consists of invaginating a portion of the scrotal fascia into the inguinal canal and suturing the columns subcutaneously with copper wire. The operation, by no means a simple one, is thus described by Stephen Smith in his "Operative Surgery," p. 445:

"Place the patient on his back, with the shoulders raised, the knees bent, the pubes shaved, the rupture reduced, and give an anæsthetic; make an incision about an inch long in the skin of the scrotum, over the fundus of the hernial sac; carry a small tenotomy knife flatwise under the margins of the incision, so as to separate the skin from the deeper coverings of the sac to the extent of about an inch, all round; pass the forefinger into the wound and invaginate into the canal the detached fascia and fundus of the sac. The finger now feels the lower border of the internal oblique muscle, which must be lifted forwards to the surface; by this means the outer edge of the conjoined tendon is felt to the inner side of the finger. Carry a stout semicircular needle, mounted in a strong handle, with a point flattened antero-posteriorly, and an eye in its point, carefully up to the point of the finger along its inner side, and transfix the conjoined tendon and the inner pillar of the external ring, when the point is seen to raise the skin, draw the latter towards the median line, and make the needle pierce it as far outwards as possible; hook into the needle a stout copper wire, silvered, about two feet long, draw it back into the scrotum, and detach; next place the finger behind the outer pillar of the ring; raise that and Poupart's ligament as much as possible from the deeper structures; pass the needle

along the outer side of the finger, through Poupart's ligament a little below the internal ring, and through the skin puncture made before; hook the other end of the wire to the eye, draw it back into the scrotal puncture, and detach; pinch up the sac in the wound with the finger and thumb, forcing the cord backward, and pass the needle across behind the sac, entering and emerging at the opposite ends of the scrotal incision; hook the end of the inner wire on the needle and draw it back across the sac and detach; now draw down both ends of the wire until the loop is near the surface of the groin above, then twist them together down into the incision, and cut off to a convenient length. Traction on the loop invaginates the sac and scrotal fascia well up into the hernial canal; twist the loop of wire down close into the upper puncture, bend it down to be joined to the two ends in a bow or arch, under which place a stout pad of lint, and secure the whole by the spica bandage; retain the wire from ten to fifteen days, or longer, according to the consolidation; untwist and withdraw upwards."

Wood has performed his operation in more than three hundred cases with but three deaths, and with, he claims, seventy per cent. of perfect cures.

That the operation is an ingenious one, and that it has been successful in the hands of its inventor, there can be no doubt. Still it is an operation that could not be generally adopted for the radical cure of hernia; its range is a limited one, the operation being inapplicable where adhesions or inflammation exist—those conditions that most urgently demand an operation for cure. The procedure is a subcutaneous one, it is working in the dark. Wood himself has inclosed a knuckle of intestines in the wire with fatal result; how much more likely would the surgeon, who performed the operation only as the necessity occurred in his own practice, be to have the same result; then, too, as is readily seen from the description, the operation is a complicated one, one likely to prove successful only in the hands of an expert.

The fourth method is known as the modern cure of hernia, or the Czerny operation. It is the common sense method and therefore the most surgeonlike. It recognizes the exact pathol-

ogy of the condition and proceeds to remedy it. In a hernia we meet with two abnormal conditions: we have first a breach in the wall and, second, we have a sac, an abnormal structure formed by the contents pushing the wall before it. To cure the lesion then, we must first remove the abnormal structure, the sac, and, second, close up the breach in the wall, and this the Czerny operation accomplishes. The operation is performed in the following way: The patient is anæsthetized, the part cleanly shaven and cleansed, an incision from three to five inches in length is made over the tumor, extending from a little above the internal ring to the centre of the scrotum; this incision being through the skin and superficial fascia, with a grooved director the three coverings common to the cord and sac are carefully divided, allowing of the free separation of the sac high up in the canal. The contents of the sac are then returned into the abdomen, a thick catgut ligature applied high up in the canal to the neck of the sac and that part below the ligature removed with scissors. Two needles are then armed with catgut, and commencing immediately above the cord the columns are sewed up as one would lace a shoe, a drainage tube is introduced at the lower angle of the wound and the external incision closed with sutures, antiseptic dressings applied and retained with spica bandage. The patient is put to bed and kept in the recumbent position until the external wound has firmly healed, and then allowed to be about with light compress for a few weeks; this is then discarded and the patient allowed to resume work without truss or other appliance. In umbilical and femoral hernia the operation is performed in substantially the same way. In congenital hernia, where the coverings of the cord and sac are one, the sac is closed by a row of catgut sutures. The operation is one easy of performance to one familiar with the anatomy of the parts. The dissection of the sac from cord is the only difficult step of the procedure. Where adhesions between the sac and contents do not exist, and where the peritoneal cavity is not opened, the operation involves no important structure and carries with it very little risk to the patient. The ligature to the neck of the sac prevents inflammation, extending by continuity of tissue,

and reduces the dangers of peritonitis to a minimum; the shock is trivial, and the only dangers to be feared are possible peritonitis, some accident of the operation, or septic trouble that may complicate any wound. As to the success of the operation, there can be no doubt; failures occur, but very infrequently, and these are usually traceable to some flaw in the operation itself. As a rule, the side operated upon is as firm and as little likely to give way as its fellow. The patient, from the time he recovers, is freed both from the annoyance of his hernia and the use of a truss; in other words, perfectly cured. I do not hesitate to perform the operation in any case where the age of the patient will permit and the hernia is one suitable for an operation; by this I mean when a well defined sac exists, but I do not urge the measure except where difficulty is met in retaining the parts with truss, or when adhesions exist. Here, I believe, the operation becomes one of necessity, not one of expediency, for such patients are continually exposed to dangers arising from the existence of the rupture, which could by an operation exposing them to little risk be cured. In all operations for relief of strangulated hernia, where the gut is returned into the abdominal cavity, the operation for cure should be performed at the same time.

The subject of the radical cure of hernia could be thus briefly summarized. In recent cases, in small hernia, and in young subjects, employ the Heatonian method and use of truss.

In other cases of hernia, where the palliative use of truss does not give relief, or in incarcerated or inflamed herniæ, insist upon the performance of the Czerny operation. In cases where the use of the truss is irksome and the patient desires an operation, operate only in those cases where the age of the patient and the condition of the lesion are most favorable to a successful result.

Dr. Bevan then reported a case of inguinal hernia recently operated upon, and showed the sac removed to the society. In this case the external wound healed in five days, and at the end of three weeks the patient was about without truss.

AN INTRA VAGINAL CUP SYRINGE.

BY E. P. FRASER, M. D., PROFESSOR OF GYNECOLOGY, MEDICAL DEPARTMENT WILLAMETTE UNIVERSITY, PORTLAND, OREGON.

The proper administration of therapeutic vaginal injections in the dorsal recumbent position with hips elevated is almost impossible in private practice owing to the discomfort, annoyance and expense attending the use of the various contrivances for receiving the injection fluid as it leaves the vagina.

These are entirely overcome by the simple instrument shown in the accompanying woodcut.

The instrument consists of a cup made of soft rubber with a flexible ring around the top. Through the bottom of the cup passes the afferent tube D, with hard-rubber nozzle, and efferent tube C, to which is attached a waste pipe two and one-half feet long for conveying the fluid into a receptacle under the bed or table. These tubes are supplied with patent stop cocks A and B.

The nozzle (E) may be removed from the cup when desired. The cup is easily introduced into the vagina by compressing the flexible ring, which readily passes the sphincter muscles and expanding produces sufficient pressure on the vaginal walls to prevent the escape of the fluid except through the outlet tube. The nozzle of any style of syringe may be inserted into the afferent tube and any quantity of water may be injected with perfect comfort to the patient. The patient lying on the back with hips slightly elevated, the fluid will dilate the upper portion of the vagina and come in contact with the entire surface, while the more sensitive portions of the vagina, vulva, and perineum are completely protected in case very hot water is used.

In applying to the vagina or cervix glycerin, glycerole of tannin, or any fluid application, remove the nozzle, close stop cock in outlet tube, remove waste pipe, inject the application, close stop cock in inlet tube and leave the instrument in *situ*. Instruct the patient to allow fluid to escape at time specified, and to remove the instrument, or it may be allowed to remain in vagina as a temporary support to the uterus, thus doing away with cotton and oakum tampons.

Many ways will suggest themselves to the physician in which this simple instrument may be made useful. I have derived much satisfaction from its use, as with it vaginal injections and medicinal applications to the vagina and cervix may be properly administered with the greatest facility. It is gladly given to the profession, believing that it only needs to be tried to be appreciated.

These instruments are manufactured by Geo. Tiemann & Co., New York City.

A BILL FOR AN ACT

To Establish a State Board of Medical Examiners and Licensers, and to Define the Duties and Power of such Board.

SECTION I.

Be it enacted by the Legislative Assembly of the State of Oregon: That there shall be appointed by the Governor a State Board of Medical Examiners and Licensers, consisting of nine members, three of whom shall serve for one year, three for two years, and three for three years, and thereafter he shall each year appoint three members to serve for three years in place of those whose terms then expire. They shall be graduates of some legally chartered college or university, having the power to confer medical degrees, who shall have practiced medicine or surgery for a period of not less than five years, but none of whom shall be members of the faculty of any such college or university. Provided, that in the appointment of said Board at least seven members shall be chosen from a list of twenty-one names submitted by the Oregon State Medical Society. In default of the submission of such list, the Governor shall appoint.

SECTION II.

Upon the organization of the said Board, it shall be determined by lot which three members shall serve for a term of one year, which three for a term of two years, and which three for a term of three years. Every appointment, to fill a vacancy or vacancies in the said State Board of Medical Examiners and Licensers, shall be for the unexpired term, and the said vacancy or vacancies shall be filled by the Governor within sixty days after notice to him of the same. Provided, that when the vacancy has been caused by death, resignation or removal of a member appointed from the list furnished by the Oregon State Medical Society, the said vacancy shall again be filled from a list of three names for each vacancy, furnished by the Oregon State Medical Society. In default of the submission of such list the Governor shall appoint.

SECTION III.

The said Board shall be a corporation by the name and style of THE STATE BOARD OF MEDICAL EXAMINERS AND LICENSERS OF THE STATE OF OREGON, and shall have and use a common seal, and as such corporation may sue and be sued, contract and be contracted with, plead and be impleaded to the extent to enable it to carry out the powers conferred upon it by this Act. Said Board may make and adopt all necessary rules, regulations and by-laws, not inconsistent with the Constitution and laws of this State or of the United States, to enable it to perform its duties and transact its business under the provisions of this Act, and shall upon its organization elect from its own number a President and a Secretary who shall also act as treasurer, both of whom shall hold their offices for a term of two years.

SECTION IV.

Every person who shall be appointed to serve on the said State Board of Medical Examiners and Licensers, in the manner aforesaid, shall receive a certificate of appointment from the Governor, and within thirty days after receiving the certificate of appointment shall file the same with the clerk of the county in which he or she shall reside, shall also file a certificate of his or her appointment as a member of said State Board of Medical Examiners and Licensers in the office of the Secretary of the State of Oregon.

SECTION V.

The said State Board of Examiners and Licensers shall examine all applicants for license to practice medicine or surgery in this State, who are properly qualified according to the provisions of Section VII of this Act, and shall exclude no one from examination nor reject him or her because of his or her adhesion to a special system of practice. It shall hold two stated meetings each year, one at on the second Tuesday in May and one at on the second Tuesday in November respectively, and may hold special meetings at such times as it may deem proper. All examinations shall be conducted in writing, and all examination papers, together with the reports and action of the Examiners thereon, shall be preserved as the

records of the said Board for a period of five years,during which time they shall remain open for inspection at the office of the said State Board of Medical Examiners and Licensers which office shall be in

SECTION VI.

Suchex aminations shall be in anatomy, physiology, general chemistry, pathology, therapeutics, principles and practice of medicine, surgery and obstetrics. Provided that each applicant, upon receiving from the Secretary of the Board an order for examination, shall receive also a confidential number which he or she shall place upon his or her examination papers, so that, when said papers are passed upon by the Examiner, the latter shall not know by what applicant said papers have been prepared, that upon each day of examination all candidates be given the same set or sets of questions. It is further provided that the examination papers shall be marked upon a scale of one hundred and that in order to secure a license it shall be necessary for the applicant to attain such average as shall hereafter be determined by the said State Board of Examiners and Licensers.

SECTION VII.

Any person, on paying twenty dollars to the secretary of the said Board and on presenting satisfactory proof of being over twenty-one years of age, of good moral character, and of having received a diploma from any legally chartered medical college or university having authority to confer degrees in medicine, shall be entitled to examination by the said Board, and in case of failure at any such examination shall have the privilege of a second examination without the payment of any additional fee.

SECTION VIII.

For the purpose of examining and licensing applicants, as well as for the transaction of other business, five members shall constitute a quorum of said Board, and when the President and Secretary of said Board shall find that an applicant has attained the necessary examination average, they shall issue to him or her a license to practice medicine and surgery in the State of Oregon.

SECTION IX.

After the first day of July, 1887, no person shall enter upon the practice of medicine or surgery in the State of Oregon, unless he or she has complied with the provisions of this Act, and shall have exhibited to the clerk of the county in which he or she resides, a license duly granted to him or her by the said State Board of Examiners and Licensers, upon which he or she shall be entitled upon the payment of one dollar to be duly registered in the office of the clerk of said county, but nothing in this Act shall be so construed as to prevent the practice of medicine and surgery by any practitioner who shall have been engaged in the practice of medicine and surgery in the State of Oregon prior to the passage of this Act.

SECTION X.

For the purpose of this Act the words, "practice medicine or surgery" shall mean to treat or attend any person for money, gift or reward.

SECTION XI.

Nothing in this Act shall apply to commissioned medical officers of the United States army or navy, or of the United States marine hospital service, nor to any member of the house or resident staff of any legally chartered medical college, or university, or hospital during his term of service therein, nor to physicians of other states, meeting duly registered physicians of this State in consultation, nor to those practicing dentistry exclusively, nor to midwives.

SECTION XII.

The Secretary shall record in a book, to be kept for the purpose in the office of the said Board the name, age, sex, residence, date and place of graduation of each applicant, together with the date of examination, the examination number, the examination average on each branch, the general average and date of issue of license, in case such license is granted. Said book shall be open to public inspection. And on or before the last day of December of each and every year, the said Board shall publish, or cause to be published, a list of the names and addresses of such persons as shall have received licenses from the said Board within twelve months immediately thereto preceding.

SECTION XIII.

The members of the said Board shall each receive a salary not exceeding seven hundred dollars per annum, to be paid out of the fees for examination. The Secretary and Treasurer shall receive an additional salary to be fixed by the Board, and shall give bond in the sum of one thousand dollars that he or she will faithfully account for the sums paid into his or her hands. The balance of the fees, after the necessary expenses of the Board, which must be stated by affidavit, have been deducted, shall be paid into the treasury of the State of Oregon.

SECTION XIV.

The Governor may remove any member of the said Board for unprofessional or dishonorable conduct upon the recommendation of a two-thirds vote of the said Board.

SECTION XV.

Should any charge or charges of unprofessional conduct be preferred against any duly licensed practitioner of medicine or surgery, the said State Board of Medical Examiners and Licensers of the said State of Oregon shall have power to summon said practitioner, before it having previously given him or her fifteen days notice of such charge or charges, with the name or names of the party or parties preferring the same and the name or names of any witness or witnesses to be called and examined in support of said charge or charges, and upon hearing thereof, and having heard the party or parties so accused and any witness or witnesses, he or she may desire to call as to his or her defence, the said State Board of Medical Examiners and Licensers shall, upon satisfactory proof of the truth of said charge or charges, refer his or her case to the District Attorney of the County, wherein he or she shall have practiced, with all specifications and all evidence in support of the same, who shall apply for a rule upon the party so accused to show cause why his or her license shall not be revoked, and the proper Court shall have power so to direct such license to be stricken from the list recorded in the office of the Clerk of the Court for the County in which the said accused shall reside.

SECTION XVI.

Any person practicing medicine or surgery in this State without first complying with the provisions of this Act, shall be deemed guilty of a misdemeanor and on conviction shall be punished by a fine of not less than fifty dollars ($50.00), nor more than five hundred ($500.00), or by imprisonment in the county jail for a period of not less than thirty days, nor more than three hundred and sixty-five days, or by both such fine and imprisonment for each and every offence. It shall be the duty of any sheriff or constable to arrest all persons practicing medicine or surgery in this State who have not complied with the provisions of this Act, and the officer making the arrest shall be entitled to one-half of the fine collected.

SECTION XVII.

This Act shall take effect from and after the first day of July, eighteen hundred and eighty-seven.

LIST OF MEMBERS

OF THE

OREGON STATE MEDICAL SOCIETY.

NAMES.	POST OFFICE ADDRESS.	ADM'TD.
Ashford, J W	Canyon City, Oregon.	1882
Augur, James T	Unknown.	1878
Avery, A G	Unknown.	1883
Bailey, F A	Hillsboro Oregon.	1875
Baker, W D	Astoria "	1875
Bayley, J R	Corvallis "	1879
Bevan, A D	Portland "	1885
Beebe, Chas E	Goldendale, Washington.	1882
Biggers, G W	Union Oregon.	1885
Binswanger, Otto S	Portland, "	1883
Blair, Hannibal	LaCenter, Washington.	1883
Browne, James	Portland Oregon.	1879
Calbreath, J F	Lafayette "	1880
Carpenter, H	Salem "	1874
Charlton, Mrs Callie	East Portland "	1879
Chapman, W Lang	Portland "	1881
Clarke, Andrew	Clackamas "	1881
Crang, F	Watsonville, Cal.	1880
Cusick, W A	Salem Oregon.	1877
Davidson, J E	Independence "	1877
Dodson, O M	Baker City "	1881
Eaton, F B	Portland "	1876
Estes, L J	Baker City "	1885
Ferra, George	Corvallis "	1879
Flinn, M A	East Portland "	1876
Ford–Warren, Mrs A L	Portland "	1877
Fraser, E P	Portland "	1879
Fulton, J A	Astoria "	1883
Ghiselin, J T	Portland "	1875
Giesy, A J	Salem "	1879
Giesy, M	Aurora "	1874
Givens, Jno W	Salem "	1882
Glisan, R	Portland "	1874
Golden, C B	Marshfield "	1881
Hall, C H	Salem "	1874
Harris, T W	Eugene "	1875
Hill, J L	Albany "	1874
Holmes, Reese	Salem "	1877
Howard, J W	Canyon City "	1877
Hunt, Lydia M	Portland "	1884
Josephi, S E	Portland "	1878
Jones, H E	Portland "	1875
Jones, William	Portland "	1879

LIST OF MEMBERS—Continued.

NAMES.	POST OFFICE ADDRESS.	ADM'TD.
Kinney, Alf C.	Salem Oregon.	1874
Kirkpatrick, J E	Dallas "	1881
Kitchen, J M	Stayton "	1877
Lane, Harry	Portland "	1877
Lane, G Cooke	Portland "	1883
Lee, J B	Corvallis "	1879
Lee, N L	Junction City "	1877
Lee, Wm C	Junction City "	1881
Littlefield, H R	Lafayette "	1875
Mackenzie, K A J	Portland "	1884
McCormac, J T	Marshfield "	1883
McKay, W C	Unknown.	1874
Morgan, J M	Spokane Falls, Washington.	1877
Nicklin, A I	Portland, Oregon.	1874
Norris, J W	Oregon City "	1880
Nottage, G E	East Portland "	1875
Owens-Adair, B A	Portland "	1882
Panton, A C	Portland "	1884
Parrish, Mrs Jennie L	Salem "	1879
Parker, S	Oregon City "	1874
Payton, D	Stockton, California.	1874
Payton, J E	Drain's, Oregon.	1877
Raffety, C H	East Portland "	1875
Raffety, Dav	East Portland "	1883
Rex, R G	Portland "	1875
Rinearson, F B	LaGrande "	1878
Rowland, L L	Salem "	1874
Royal, W W	East Portland "	1881
Saylor, W H	Portland "	1875
Sharples, A	Eugene "	1876
Smith, J R	Vancouver, Washington.	1881
Smith, H C.	Centralia "	1885
Stott, J S.	Carlton, Oregon.	1883
Strong, C C	Portland "	1874
Tower, C W	Empire City "	1880
Tuttle, Jay	Astoria "	1880
Tyler-Smith, W	Sheridan "	1881
Urquhart, R A	Portland "	1884
Wade, Wm L	Salem "	1880
Watkins, W H	Portland "	1874
Watkins, Wm B	Portland "	1884
Watt, J F	Pullman, Washington.	1885
Wells, G M	Portland, Oregon.	1882
Wheeler, C H	Portland "	1881
Whiteaker, J C	Cottage Grove "	1883
Whitney, M H	Portland "	1885
Willey, O F	East Portland "	1885
Wilson, H C	Portland "	1880
Wilson, R B	Portland "	1874
Worthington, C E	McCoy "	1881

DROPPED.

The following names have been dropped from the roll of members for non-payment of dues.

W. E. H. Boyd, S. D. McCauley, F. A. Cauthorn, H. V. V. Johnson, I. N. Power, H. O. Williams.

HONORARY MEMBERS.

Baily, E. I., M.D., Lt. Col., U.S.A.	Washington, District of Columbia.
Chance, G. H., D.D.S.	Portland, Oregon.
Gibbons, H. Jr., M.D.	" "
Hill, R. C., M.D.	Albany, Oregon.
McClellan, Eli, M.D., Maj. U.S.A.	Vancouver, W. T.
Newell, Wm. A., M.D.	Olympia, "
Marvin, Frederic R., M.D.	Portland, Oregon.
Rice, D. B., M.D.	Albany, "

DECEASED MEMBERS.

John Vite, M.D., December 11, 1876—aged 46 years.

E. R. Fiske, M.D., August 28, 1877—aged 61 years and 60 days.

J. P. Tate, M.D., June 14, 1878—aged 55 years and 210 days.

Mrs. E. A. J. F. Robinson, M.D., June 29, 1879—aged 22 years and 231 days.

A. M. Belt, M.D., August 18, 1881—aged 77 years and 26 days.

M. D. Jennings, M.D.

John T. Wells, M.D., October 23, 1882—aged 36 years.

W. B. Cardwell, M.D., February 10, 1883—aged 41 years.

Philip Harvey, M.D., March 23, 1883—aged 78 years.

W. D. Cox, M.D., December 13, 1883—aged 45 years.

Wm. A. Howell, M.D., June 5, 1883—aged 33 years.

OFFICIAL REGISTER FROM TIME OF ORGANIZATION.

1874.

President, Alfred C. Kinney; Vice President, J. L. Hill; Secretary, C. H. Hall; Corresponding Secretary, J. Reynolds; Treasurer, L. L. Rowland.

1875.

President, R. Glisan; Vice President, O. P. S. Plummer; Permanent Secretary, Curtis C. Strong; Corresponding Secretary, W. B. Cardwell; Treasurer, L. L. Rowland.

1876.

President, W. H. Watkins; Vice President, D. B. Rice; Permanent Secretary, Curtis C. Strong; Corresponding Secretary, A. C. Helm; Treasurer, L. L. Rowland.

1877.

President, L. L. Rowland; Vice President, W. C. McKay; Permanent Secretary, Curtis C. Strong; Corresponding Secretary, C. H. Hall; Treasurer, J. P. Tate.

1878.

President, H. Carpenter; Vice President, F. A. Bailey; Permanent Secretary, Curtis C. Strong; Corresponding Secretary, O. P. S. Plummer; Treasurer, W. H. Watkins; Librarian, L. L. Rowland.

1879.

President, D. B. Rice; Vice President, W. B. Cardwell; Permanent Secretary, Curtis C. Strong; Corresponding Secretary, W. H. Saylor; Treasurer, R. Glisan; Librarian, Curtis C. Strong.

1880.

President, F. A. Bailey; Vice President, C. H. Merrick; Permanent Secretary, Curtis C. Strong; Corresponding Secretary, E. P. Fraser; Treasurer, H. Carpenter.

1881.

President, C. H. Merrick; Vice President, W. A. Cusick; Permanent Secretary, E. P. Fraser; Corresponding Secretary, W. H. Saylor; Treasurer, H. Carpenter.

1882.

President, C. C. Strong; Vice President, Mrs. J. L. Parrish; Secretary, E. P. Fraser.

Executive Board.

W. H. Watkins, R. G. Rex, S. E. Josephi, H. Carpenter, C. Charlton.

1883.

President, W. H. Saylor; Vice President, J. W. Norris; Secretary, E. P. Fraser.

Executive Board.

W. H. Watkins, R. G. Rex; S. E. Josephi, H. Carpenter, G. M. Wells.

1884.

President, S. E. Josephi; Vice President, F. B. Eaton; Secretary, E. P. Fraser.

Executive Board.

R. Glisan, G. M. Wells, W. H. Watkins, R. G. Rex, K. A. J. Mackenzie.

1885.

President, J. W. Givens; Vice President, H. C. Wilson; Secretary, E. P. Fraser.

Executive Board.

C. C. Strong, R. Glisan, G. M. Wells, W. H. Watkins, R. G. Rex.

FINANCIAL REPORT OF E. P. FRASER,

For the Year ending June 10, 1885.

1884.		Dr.		
	To Balance at last report			$301 86
June	6--K. A. J. Mackenzie	Dues to	1885	5 00
"	6--C. E. Beebe	"	1885	3 00
"	19--R. A. Urquhart	"	1885	5 00
"	19--F. B. Rinearson	"	1885	11 00
"	19--J. C. Whiteaker	"	1885	3 00
"	21--C. H. Hall	"	1884	9 00
July	9--F. A. Bailey	"	1885	3 00
"	12--S. Parker	"	1883	3 00
"	12--Advertisements, Vol. XI.			25 00
Aug.	11--D. Payton	Dues to	1885	6 00
"	13--O. D. Doane	"	1885	6 00
1885.				
Jan.	10--J. E. Payton	"	1885	6 00
March	25--J. E. Davidson	"	1885	6 00
May	18--J. T. McCormac	"	1886	6 00
"	18--C. B. Golden	"	1886	6 00
"	29--James Browne	"	1886	3 00
June	1--A. C. Panton	"	1885	5 00
"	1--W. H. Saylor	"	1885	3 00
"	1--M. Giesy	"	1886	6 00
"	3--J. T. Ghiselin	"	1886	3 00
"	4--R. Glisan	"	1886	3 00
"	5--L. M. Hunt	"	1886	3 00
"	5--A. Sharples	"	1885	3 00
"	6--J. W. Howard	"	1886	3 00
"	8--W. W. Royal	"	1886	9 00
"	8--W. D. Baker	"	1886	6 00
"	9--A. J. Fulton	"	1886	6 00
"	9--G. E. Nottage	"	1885	9 00
"	9--O. M. Dodson	"	1886	6 00
"	9--B. A. Owens-Adair	"	1886	3 00
"	9--J. W. Biggers	"	1886	5 00
"	9--L. J. Estes	"	1886	5 00
"	9--G. M. Wells	"	1886	3 00
"	9--A. J. Mackenzie	"	1886	3 00

1885. DR.

June	9	R. A. Urquhart	Dues to 1886	3 00
"	9	Harry Lane	" 1886	3 00
"	9	O. F. Willey	" 1886	5 00
"	9	S. E. Josephi	" 1885	3 00
"	9	Dav. Raffety	" 1886	6 00
"	9	A. L. Ford-Warren	" 1886	6 00
"	9	S. Parker	" 1884	3 00
"	9	R. G. Rex	" 1886	9 00
"	9	H. Carpenter	" 1885	3 00
"	9	J. W. Givens	" 1886	3 00
"	9	W. L. Wade	" 1886	6 00
"	9	J. W. Norris	" 1886	3 00
"	9	J. C. Whiteaker	" 1886	3 00
"	9	H. C. Wilson	" 1886	3 00
"	9	M. H. Whitney	" 1886	5 00
"	9	J. F. Watt	" 1886	5 00
"	10	O. S. Binswanger	" 1886	3 00
				$563 86

1884. CR.

May	29	Rent of Hall	$10 00
June	3	Printing notice of meeting and programme	13 00
"	4	Stationery	35
"	6	Postage stamps and cards	1 00
July	10	Postage stamps	10 00
"	19	Printing Transactions, Vol. XI.	215 70
"	21	Salary	50 00
"	21	Express	50
Aug.	19	Postage stamps	2 00

1885.

May	10	Postage stamps	$2 00
"	25	"	2 00
		To Balance	257 31
			$563 86

CONSTITUTION AND BY-LAWS

OF THE

OREGON STATE MEDICAL SOCIETY.

CONSTITUTION.

ARTICLE I. *Title* — This Association shall be styled the Oregon State Medical Society.

ART. II. *Object*—The object is to keep the profession within its limits in organic relation with the American Medical Association, and to unite its members for co-operative effort for their mutual welfare and professional advancement.

ART. III. Any graduate of a medical school, entitled to representation in the American Medical Association, if engaged in a reputable practice, shall be eligible to membership; but, unless a commissioned officer in the United States Medical Service, a member in good standing of some other State Medical Society, or a graduate of the Medical Department of the Willamette University, he must have been engaged in practice for one year in Oregon or Washington Territory.

ART. IV. *Officers*—The officers shall be a President, Vice-President, Secretary, and Executive Board.

ART. V. The regular meetings of the Society shall be held annually, commencing the second Tuesday in June.

ART. VI. *Funds*—The revenue of the Society shall be from dues payable annually by the members.

ART. VII. *Amendments*—This Constitution may be amended at any regular meeting with the concurrence of two-thirds of the members present, but the proposed amendment must be submitted in writing to the Executive Board, and made known to the members one week or more before the meeting.

BY-LAWS.

ARTICLE I.—*Election of Members.*

Section 1. Applications for membership shall be submitted in writing to the Executive Board, and shall state the place and date of graduation, the present and previous locations in practice of the applicant, and must be endorsed by one or more members having personal knowledge of his qualifications.

Sec. 2. The vote shall be by ayes and nays, unless ballots are called for, and two thirds required to elect.

ARTICLE II.—*Payment of dues, withdrawal and expulsion of Members.*

Section 1. Any member two years in arrears for dues shall be reported to the Society as delinquent, and shall thereupon be notified by mail of such delinquency at least three months before the next annual meeting; and when three years in arrears, after due notification by the Secretary, shall be dropped from the roll of members.

Sec. 2. Any member not in arrears and free from other charges, shall be entitled to a card of honorable dismissal on application to the Secretary.

Sec. 3. A member may be expelled at any regular meeting with the concurrence by a ballot of two-thirds of the members present, providing: Charges of violation of the code and regulations of the Society, or conduct unbecoming a member, have been preferred and made known to every member one week or more before the meeting, and that the accused have ample notice and opportunity to reply thereto.

ARTICLE III.—*Duties of Officers.*

Section. 1. The President shall perform the usual duties of presiding officer, make all appointments during the meeting not otherwise provided for, and deliver an address on retiring from the Chair.

Sec. 2. The Vice-President shall take the Chair in the absence of the President.

Sec. 3. The Secretary shall keep a record of the meetings of the Society and Executive Board, collect, hold and expend the funds of the Society under the direction of the Executive Board; submit an annual report of the transactions of his office, and receive a salary of fifty dollars per annum.

Sec. 4. The Executive Board shall have general supervision of the Society, have charge of its publications, make arrangements for its meetings, fill official vacancies, and transact all business of the Society not otherwise provided for. It shall examine into applications for membership and charges against members, and report the same to the Society with approval or disapproval; and appoint the delegates to the American Medical Association. An account of its proceedings shall be included in the published transactions of the Society.

Sec. 5. The term of office for the President and Vice-President shall be one year; Secretary, three years, and members of the Executive Board, five years.

ARTICLE IV.—*Meetings.*

Section 1. The Executive Board shall give notice of the time and place of meetings to the members one month in advance, and a specific Order of Business at least one week in advance.

Sec. 2. Any papers, resolutions, applications for membership, charges against members or other matters of business, if reported to the Executive Board in time for publication with the Order of Business, shall take pre-

cedence of all other matters at the meeting, except by special permission of the Society.

Sec. 3. At each annual meeting six subjects shall be selected by the Society for special consideration at the following meeting, and within a month thereafter six members shall be appointed by the Executive Board to prepare written reports thereon, the reading and discussion of which shall constitute the regular exercises of the meeting.

Article V.—*Dues.*

The annual dues shall be five dollars for the first year of membership, and three dollars thereafter, payable to the Secretary in advance.

Article VI.—*Code of Ethics.*

The Code of Ethics of the American Medical Association shall be binding on members of the Society.

Article VII.—*Amendments.*

These By-Laws may be amended at any regular meeting by a concurring vote of two-thirds of the members present, but the proposed amendment shall be submitted in writing to the Executive Board, and made known to the members one week or more before the meeting.

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SUBJECTS FOR SPECIAL CONSIDERATION AT THE NEXT ANNUAL MEETING:

Neuralgia	S. E. JOSEPHI, M.D.
Bright's Disease	W. H. WATKINS, M.D.
Senile Disease	L. L. ROWLAND, M.D.
Urethral Strictures	R. A. URQUHART, M.D.
Germ Theory of Disease	K. A. J. MACKENZIE, M.D.
Cystitis	G. M. WELLS, M.D.